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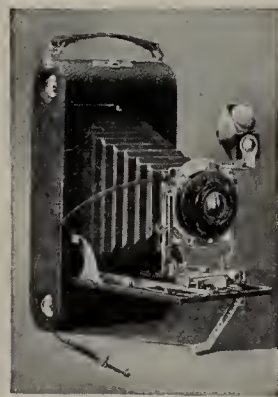
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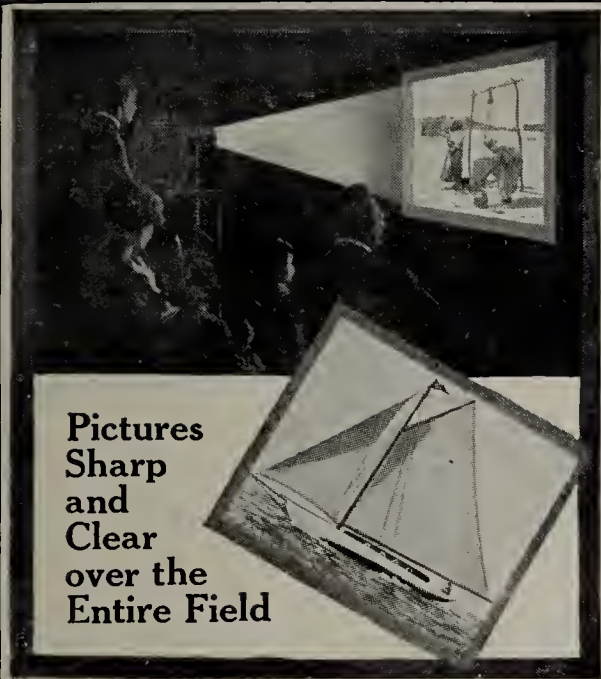
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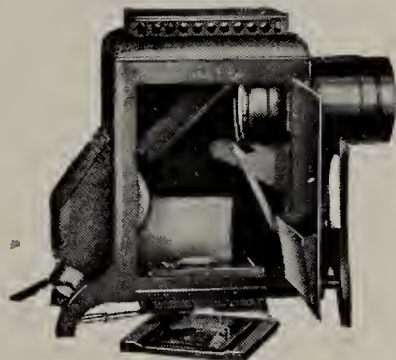
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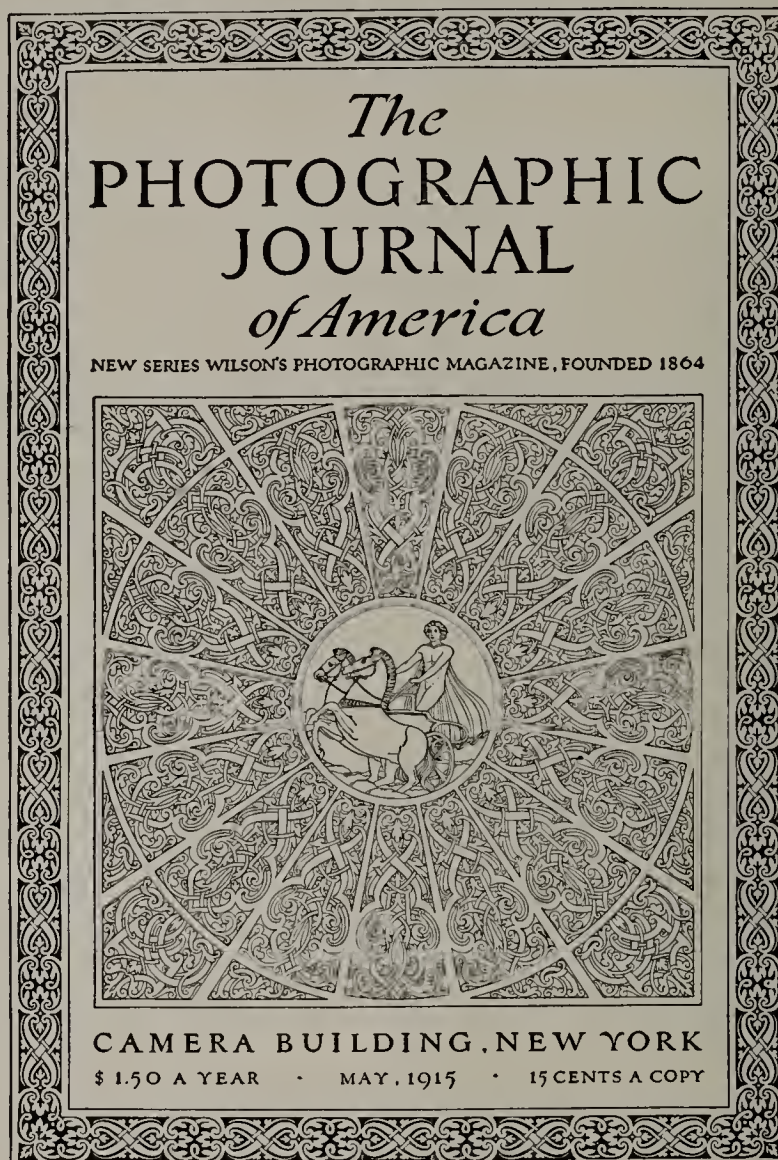
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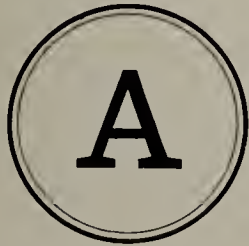
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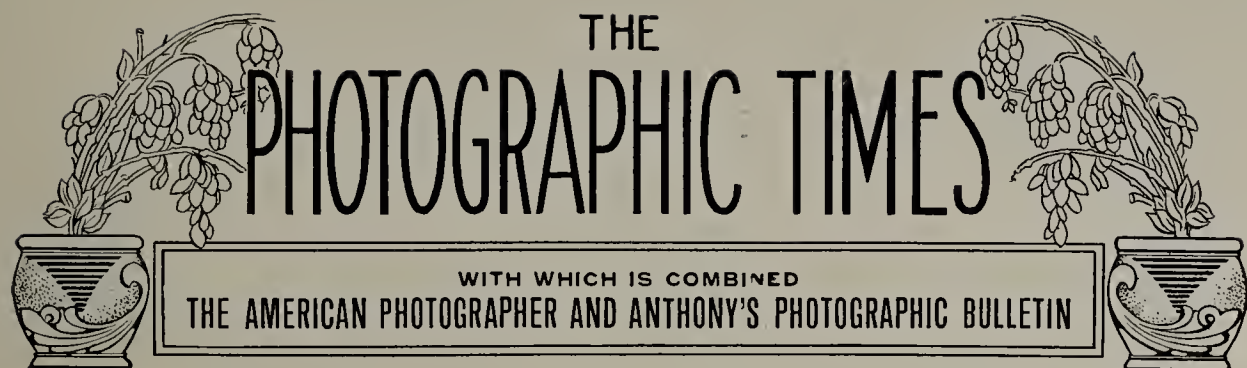




"CONTEMPLATION"

*R. R. Sallows*





VOLUME XLVII

OCTOBER, 1915

NUMBER 10

## BEGINNER'S LESS COMMON MISTAKES

BY C. H. CLAUDY

IN the May issue of THE PHOTOGRAPHIC TIMES my story was concerned with some of the common mistakes of the beginner. As explained therein, no attempt was made to itemize all his common mistakes, questions of space forbidding.

There are, however, a number of things which the beginner soon learns to avoid, and an equal number which he is prone to forget. These latter constitute his less common mistakes—less common than the usual faults of under- and over-exposure, because any beginner worthy of the name soon masters the elementary principles of photography. Possession of the ability to make a good photograph, however, as far as exposure, development and printing are concerned, is but the beginning of the art. In composition, in lighting, and choice of viewpoint, for instance, there are as many ways of going wrong as there are of going right. It is in these three matters, then, that one looks first to find the less common errors of the beginner of a few months' experience—less common than he has more practice, but no

less deadly as far as artistic results are concerned than those almost daily errors of the first exposures, when too little or too much time, movement, double exposure, unnatural attitudes and such things make the photographic road one apparently difficult of successful travel.

In landscape photography a poor composition is perhaps, less common than a fair one—a fine composition is rarest of all. It seems rational, then, to include failures of composition under the heading of the less common mistakes of the beginner.

As seeing is better than argument, consider Figure One, which is from the technical standpoint a very good photograph. It is one which nine beginners out of ten would probably feel proud to have made, and yet it is unsatisfactory from the standpoint of the camera user whose efforts and study have led him to some appreciation of what a real pictorial representation may mean.

Obviously, this pastoral scene has no claims to mere record value. It was not made with the idea of producing



Fig. I.

an illustration of cows for a cow dealers' catalog. It makes no pretensions to be anything other than what it is—a photograph of cattle on the way to market or on the way home.

Being, then, an attempt at the pictorial pure and simple, it must be judged from pictorial as well as photographic standards. Satisfactory in exposure, development and printing, although somewhat flatly lighted, our first criticism comes from the fact that the interest is scattered and not concentrated. The man in the circus objects to three rings because he cannot see what is going on in all three at once, and in the vain effort to do so, misses much of what is good in all. The beholder of a picture has the same right to demand of the artist a concentration of interest, a leading of his attention into, through and out of the picture, without breaks and interruptions. Here the photographer has ob-

viously taken the picture at the most convenient moment—an easy way to get a photograph, but a poor way to get a picture worthy of being so called. Cows are coming over the bridge, cows are walking down the side road presumably to get a drink, one cow has had her head cut off by the photographer, but gives no indications of knowing it.

The viewpoint of the camera is too low and too much to the left, to give the beholding eye any satisfaction in regard to the bridge. It would have been as easy to get more upon the road, to have avoided the coincidence of the two top rails of the bridge and to have given some idea of receding perspective, by means of the retreating lines of the bridge. Such considerations as these, omitted from thought by any one able to make as good a technical photograph as this, constitute one of the most objectionable of the less





*Fig. III.*



Fig. V.

common mistakes, and show without further words the real need of some study of the elements of composition by any one who aims to make of his camera anything more pretentious than a mere recorder of facts.

Figure Two is another example of the same thing, though even more pronounced. Here there are no less than three centers of interest—tent, group and tree, and fire.

Now a camp is easily susceptible of interesting treatment—a camp is a simple affair—a tent, a fire, a tree, a wood pile, perhaps, and the human figures. It is easy to arrange so small a number of units into an agreeable composition. The arrangement can usually be effected by moving the one thing easiest to move—the living group, and choosing properly the place to set the camera. Here, however, the

photographer has planted his instrument directly between all three of his objects, shot directly at the center, and produced a result which has no pictorial value whatever, but only a feeling of regret for a lost opportunity.

Yet it is a good photograph, technically speaking, with the exception of the out-of-focus trees. Trees beyond true focus may be full of feeling and very pictorial, but not when they are isolated masses of spots of light and shade, as in this instance. As there was little if any movement to fear in such a composition as this, there appears to be no good reason why the lens should not have been sufficiently stopped down to have avoided this criticism, anyway.

Few departments of photography make a mightier appeal to the beginner than portraiture. None are



*Fig. VI.*

harder for the beginner. The reason is plain—in portraiture, which is successful, there must be not only first class photography, but a competent and well applied knowledge of lighting, of the dynamics of light and shade, of composition and of pose. It is rare that any one man masters them all—rarer yet when a beginner can satisfy a critic that he has failed in none of these things. But when the beginner has mastered his camera and his photography, it is less common to find him making mistakes in lighting than in pose and composition, so Figure Three properly comes under the title of this tale.

It is a pity to see a good job but half

done, as in this instance. Here is an attractive grouping, a well arranged mass of drapery, an easy, natural pose—and spoiled, pictorially speaking, by the fact that both figures are silhouetted against a blank blackness, both trail off into a blank blackness of the same hue in front and to the side, and both lose all details of hair into the same darkness.

This is unnatural because it doesn't appear so to the eye. It is not possible to place two figures as close to a window as these are placed—a window giving light enough easily to allow them to read in a book, as these are doing,—and at the same time to have their feet and the backs of their heads

in total darkness. It is as unnatural as an opaque shadow in the sunlight—it is a condition which does not exist. Most photographers who have mastered pose, and control of light and exposure sufficiently to get so soft and well modulated flesh tones as in this case, would know enough to use a



*Fig. IV.*

lighter background, employed a larger reflector, give a longer exposure, or otherwise relieve that unnatural blackness. Yet there are many who do not consider, that no picture is a good picture which does violence to nature—and the maker of this less common mistake is one of them.

So is the photographer of the baby girl shown in Figure Four, but from a totally different reason. Here the background, while not light, is perfectly transparent, there is no feeling of Stygian darkness about the picture, and the flesh tones are soft and

rounded. But the mistake has come in using a wide open top light on a baby who already possesses decidedly pronounced and well marked features. Take an infant with a tiny, thin-lipped mouth, a shoe-button for a nose, small eyes and little hair, and the top light may seem to provide him with the usual facial appurtenances of a human being. But to take this baby, with her big eyes, her wealth of hair, her well shaped nose and rather large, if pretty mouth, and exaggerate every feature with a top light which not only emphasizes them all but puts a catch light in the eyes which makes her stare, is a photographic crime. Here again is the uncommon mistake—the man who knows enough to make this sort of a picture at all usually has studied enough of the adaptation of light to the particular subject of his art to know better than to so mismate sitter and illumination.

View point in photography has a two-fold meaning—view point with regard to the picture as a whole, as taken up in Figures One and Two and view point as considered with relation to the height of the camera, as exemplified in Figures Five and Six. Mistakes such as these two latter pictures show are not common, at least by beginners sufficiently advanced to plan such happy pictures as these two babies make. But Figure Five was made with the camera all too low, and with the unhappy result of giving the little pianist a Brobdinagian appearance which her daintiness does not deserve. The barely visible chair top, on which she is seated shows, that the camera was no more than eight or ten inches from the floor. To look up into





Fig. II.

the face of the small sitter, to show the piano from below rather than above, was a sad error, since it magnifies size, throws proportions out of gear and produces an illusion of bulk which is distinctly undesirable. Yet the material is here for a singularly attractive picture, and although the spot of light to the left is bewildering, the lighting otherwise is good, the composition is simple and the effect of the whole as pleasing as possible when this uncommon error is left out of consideration.

Exactly the opposite error is shown in Figure Six, in which the camera has been held so high that Little Miss Daisy Chain Maker has no face at all—only hair!

It would seem that, other things being equal, a man or a woman would take time to think of so easily righted a detail as this, before expending a plate, doing the work of development

and printing, and risking a possibly fine picture for the sake of the saving of the few minutes necessary to decide upon the one best elevation of the camera. Indeed, I believe that most beginners who have progressed to the stage when they can and do compose a picture, as in these two instances, and give some thought to the occupation of their sitters and the composition as a whole, do spend time figuring out the proper height of their instrument. Hence I put wrong elevation as an uncommon error for the beginner who has advanced beyond the over- and under-exposure stage, and with it, draw my diatribe to a close. As in the previous story, no attempt has been made to catalog all the errors, common or uncommon, of the more advanced beginner—merely to call his attention to those which will most surely spoil what otherwise might be his masterpiece!

## CHOICE OF VIEW

BY W. B. SWIFT

THE task our editor has given me of writing on "Choice of View," is by no means an easy one. Before coming to our main subject, it will be well to devote a little time to what is necessary preparation by the photographer before he is really ready to choose views. The first thing is to master certain technicalities and manipulations to such an extent that when he is in the field the uncertainties and obstacles in the way of his artistic treatment will not be increased by ignorance of the means he has at hand.

While we leave the mechanical part to those who are solely concerned and occupied with development, printing, and the rest of the chemistry of photography, and do not care to use their skill as a means to art, it is necessary to fully comprehend the capacity of the camera and lens you have at your disposal, remembering that the best instruments are none too good for your purpose. Then you must have the ability to develop some one brand of plate in all its various conditions of under- and over-exposure, with reference to the result desired, by some simple developer, as pyro, and to give the proper exposure under varying conditions. With enough knowledge about printing to direct the printer in finishing your pictures, perhaps these are the best preparations absolutely necessary. Of course, other details will become necessary as your experience broadens, while with this much

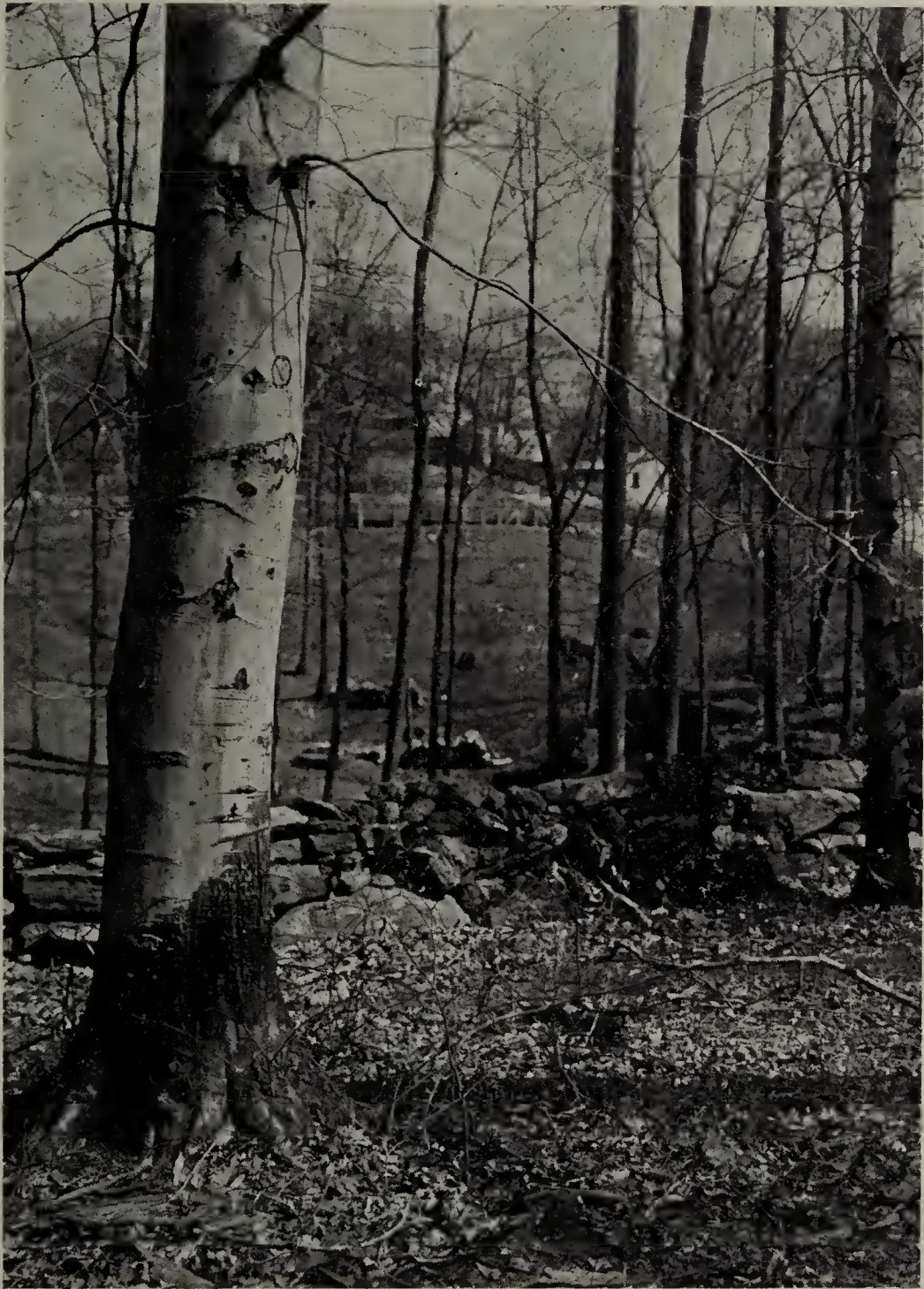
mastered you can begin at once to transfer your attention and thought from the physical to the metaphysical side of photography, and there join in the dreams of the poet with an ever-growing fascination for suggesting stories, country tales, and the innumerable phases of man and Nature.

That ability to select or discard landscapes with a degree of certainty as to their final merit as pictures is of the utmost value to those who would do any serious work in art. In selecting views it is often advantageous to write down a list of characteristics one considers requisite, as, for instance, the following:

1. A broken foreground.
2. Retreating middle distance.
3. A varied position.
4. A place for figures.

There are many landscapes which will lack one or more of these items and yet be beautiful; but it is well at first to work on a limited ground, and branch out as one's knowledge of art and its laws requires. It may be said here that the reading of books on art and the study of what others have considered beautiful will be found an aid in selecting the best landscapes, and will be as needful in learning all the various details of balance of lines, composition, light and shade, and value. These cannot be properly considered in so limited an article as this. But let those who read books have an eye to that weakness, which seems in-born in some, of using the materials





"THE BIRCH"

Wm. Ludlam, Jr

which the author has selected to illustrate the principles, and huddle them together in a somewhat different form, and call it one's own, or venture to call it art. Bits of pretty things packed together in this way do not make beauty. You will find that many views which possess all these characteristics will fail to be artistic, and thus perhaps lead many to doubt the value of this guide. In reality a picture must have unity and harmony of parts with the whole in order to become a truly choice landscape, and what one might call of exhibition standard. This unity must be maintained throughout with reference to the main idea of the view, *i. e.*, the selection of details must be subordinated to the principal motive of the story.

But I seem to be getting away from my subject. It is difficult to keep to it, because innumerable considerations which the careful view-taker must heed are so dependent upon the right choice, and vice versa.

In general, choose such views as appeal to your sense of beauty, and, if you have deep within you a burning passion for beauty of expression, you will need to copy no style, nor limit yourself to any method, for as you advance your ideas will take shape of themselves, and your pictures will show your individuality.

You *must* be sincere, for sincerity is at the very basis of art. Choose such views as may be treated artistically. A photograph, to come within the sphere of art, as one of the principal things must either tell a story, please you, set you thinking, or make you wonder. Often it will do more than one of

these. The point where the photograph passes from the mere mechanical, material production to a *picture* is just where the right treatment is given it. In the one you are attracted to the physical, in the other to the idea. In the one you see a stump, an ugly pond, an unbalanced tree; in the other you *feel* the sentiment or pleasure, and catch the idea. The picture-maker speaks to you in his work when he makes you feel the beauties that he has felt. Let us all strive to be picture-makers; not merely make the photograph, but let it also be a *picture*.

Select those landscapes which are balanced in themselves, or that you can balance. It is often easy to balance a view by introducing a figure, or by moving a stick that points the wrong way.

A finder is convenient for measuring the view, to see whether it will require a large camera or a small one, and also to see where on the plate the objects will be likely to appear, and if they will be so connected as to make an agreeable effect.

It will be instructive for some, perhaps, to come out on the field in imagination, and there select a view. So let us take a finder, and start. It is hardly ever convenient to take the camera at first, though one often loses a shot one cannot get again. But these artistic shots are seldom artistic in all points.

We come to a beautiful bridge, and think we shall get a good view of it. Our road leads down to it through a cut in the high bank. We see that if taken from here we shall lose the story we must have our picture tell; the one



we might expect would take in, besides the bridge, the road and the river above and below, thus showing the surroundings of the bridge. We think a view from one of these banks above the road may be the best, and mounting, try to place the finder so as to make a good picture. It happens that the road turns as it leaves the bridge on the other side, and seems thus to cut off a bit of the story we had in mind; then we are too high; too much above the bridge; and, besides, that swampy land in the background makes a continuous line of horizon. Perhaps the other side of the road may be better for our standpoint, but we find it is not. Let us cross the bridge and try the other side. Yes! Here we have just what we wanted—the light bridge with river above and below, backed by a line of evergreens, and the road vanishing in the distance. There, also, the road turns off just in the right place to leave enough for our foreground and no more. Let us take the view here with a person on the bridge, and we may have a presentable picture. If it comes out well we shall have the satisfaction of knowing that it is not a chance view.

Here let me warn you against exhibiting chance views, for if the judges happen not to find it out, you will not

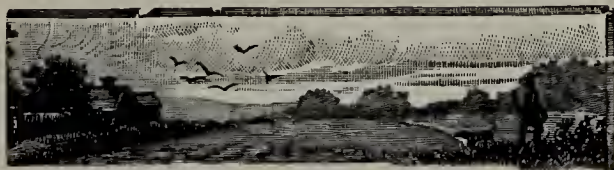
feel quite right to receive a prize so undeserved, and the next exhibit may find you without pictures. Be always persistent and ever on the watch for new and better views, and by-and-by, without knowing it, you will have become an artist.

After some experience you will out-grow and prefer to discard the list of requisites above, and adopt something like this, of more detail:

1. Lines well balanced.
2. Values well chosen.
3. Oneness of idea.
4. Subjects *in* picture.
5. Figures dressed appropriately to environment.
6. Show man's relation to Nature.
7. Clouds when needed.
8. Light focussed.
9. Neither principal object nor light in center.
10. Modest name.

This is, however, only suggestive, and puts the criterion rather high.

Finally, as you advance year by year, you will find that you are not merely hunting and selecting landscapes, but that you are working from an entirely different basis. You are seeking material to clothe your ideas, and when you reach this point you find that photography is charming indeed.



## KNOW YOUR LENS

BY P. M. BRUNER

**H**OW many photographers really know their lens? Know what it will do and what it will not do. Know what to expect from it under all circumstances. Know why it will or will not do certain things. I venture to say that there is a very small percentage who do. The reason of this ignorance is that results are possible after a certain amount of practice. The cost of ignorance is enormous and considering the comparative ease with which the knowledge is obtainable ignorance is inexcusable. With six hours time and the proper use of one dozen plates more can be learned than in a year by the hit-or-miss system.

Take the rectilinear, a better lens than the manufacturers of anastigmats would have us believe. A better lens to start photography with is not on the market and I don't suppose there ever will be. With this comparatively fine results are easily had and it will no doubt surprise many to learn that a large majority of the prize winning pictures shown in the exhibitions are made with them. I will suppose that you agree with me so far and now pass on trying to explain its advantages and disadvantages and how you can overcome some of the later to some extent.

We will suppose for convenience that you have a five by seven camera which will very likely be equipped with an eight-inch focus rectilinear. Set up the camera, open up the lens wide

and focus on the wire screen in a window. Get under the focusing cloth and examine the ground glass closely with a magnifying glass. Here is what you will find. In a two or three inch circle in the center of the plate you will notice that the wires or lines will be sharp but as you get out towards the edges of the plate you will find the lines are not so sharp and in places look fuzzy. Possibly you will see fuzzy places within the three-inch circle. Now this diffusion is not sharply marked at the different distances mentioned, but is gradual, so gradual in fact that it will not be noticed unless the magnifying glass is used. If the lens be of shorter focus, say seven inches, the difference in sharpness between the center and edges will be easier to detect, but if the focus is nine or ten inches the circle of sharp definition widens and will probably extend over the whole plate.

Before taking up the practical value of this knowledge I will give you the reason it is so. Referring to figure one we have a diagram showing how this type of lens works. We will call the lens R., the plate P. and F., the point at which the rays of light are brought to focus. The diagram is exaggerated to show more plainly but you will see that the line where the rays are focused only touches the plate at one point and that at the center. This explains why only the small area in the center of the plate is in the sharpest focus, the F. line or field of the lens not touching



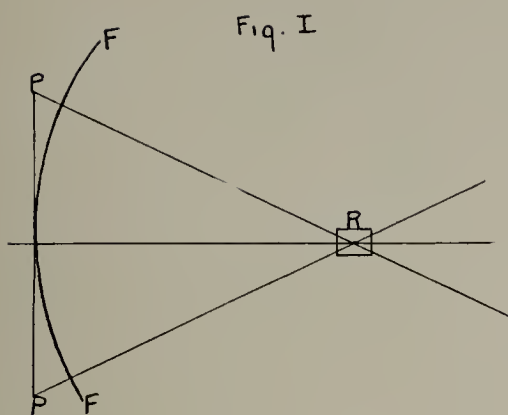


Fig. I

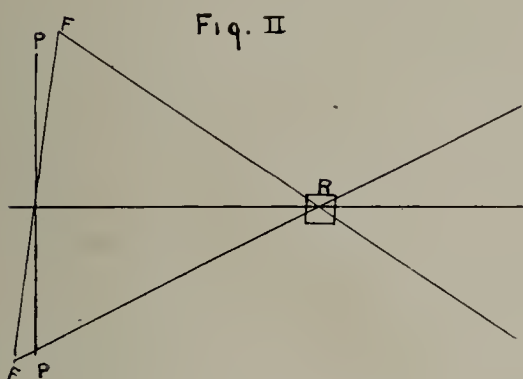


Fig. II

the plate at the corners. In reality line F. is not a line, but saucer shaped and by looking at a saucer and considering it the field of the lens you will see that the rays of light come to focus on its concave surface. By using a lens of longer focus the F. line becomes straighter and therefore closer to the edges of the plate thus giving sharper definition at the edges than one of shorter focus.

From the foregoing it will be seen that for the sharpest pictures a long or moderately long focus lens of this type will give the best results. Practically it has been found best to use one whose focus is about one and one-half times the longest side of the plate. A shorter focus may be used but to get results equal to that given by one of longer focus it will have to be stopped down so far that in many cases it will be impossible to take pictures.

The only real value of the short focus is in wide angle work.

The subject of stops and their use is a subject for a book but I will try to condense the more important points so that while I touch lightly on them you will possibly get a little better understanding of them.

Take a look at the lens and you will notice that its widest opening is marked either F8. or U.S.4. Now leaving the question of why they are marked this way as it is very fully covered by most manuals that come with the camera we will consider their effect. By stopping down from the widest opening to the next smaller stop we cut off one half the light that reaches the plate in a given time. Each smaller stop cuts off one half the light that the next larger one passes and by knowing this it becomes an easy matter to figure the exposure for any stop if the exposure for one of them is known. Suppose that with the lens wide open an exposure of one second is required. Then with the first stop two seconds is needed, the second stop four seconds and so on doubling the exposure for each smaller stop. The rule works backwards in that you take half the exposure for each larger stop. This covers the stop question as far as the exposure is concerned.

Once more focus on the wire screen as you did in the first place. Cover up your head well with the focusing cloth and examine the ground glass carefully with the magnifying glass. Reach around and stop the lens down to about sixteen and note the difference which will be in the lines near the edges of the plate becoming sharp.

When making this experiment you should be as close to the screen as three feet if your camera has sufficient bellows capacity and the focusing screen must be parallel to the wire screen. If stop sixteen does not make all the lines on the focusing screen sharp, either the lens is too short in focal length or it must be a very poor one.

Now I will describe some practice which if you will take the trouble to go through with will be worth dollars to you when you cannot work off the tripod or do not have time to accurately focus your subject. In this practice be sure to use the tripod, focusing cloth and magnifying glass. Suppose you wish to take a view of a street scene and an object about twenty-five feet away must be sharp as well as the far distance. At what distance should your lens be set on the focusing scale and what stop used to make both equally sharp? That is a question I feel perfectly safe in saying that not one in twenty can answer. Can you not see the value of knowing that question and don't you see how easy it is to find out. One hour's practice with a desire to learn is all that is necessary. What you are learning is the depth of focus at the different stops and I would particularly recommend this practice at the shorter distances. Focus first with the lens wide open on some subject and then watching carefully note the increasing depth as the smaller stops are used. I know and maybe you do too that there are figures to show all this, but my argument is, figures are tiresome and hard to remember and the actual trial in the camera is far more interesting and easier to remember.

I will not say any more about the stops. From what I have said you can experiment and learn all there is to know about them. The practice costs nothing and no plates are necessary because what you see on the ground glass will be on the plate with the proper exposure and development. After you have gone through some practice then go out and expose a few plates to see how much you remember.

The highest development of scientific lenses is reached in the anastigmat. With these lenses the finest possible results can be had but I find that comparatively few know how to get them. Why? Because they don't know why it is an anastigmat. A lens of this kind to most people is one that takes a picture in one-thousandth of a second and that is as far as their knowledge goes. Can you give three or four reasons why it is different from the rectilinear? If you cannot give the two principal reasons you stand an extremely small chance of getting its best work.

Referring back to figure one, the F. line of this type of lens occupies the same place as the plate. In other words the field is perfectly flat and not concave and if the lens is mounted correctly and sharply focused every part of the plate will be equally sharp. One of the principal corrections then is flatness of field.

The correction for astigmatism from which it gets its name is the ability to focus all lines in the same plane equally sharp. This is extremely important in some lines of scientific work.

I will not take up the corrections for



color, distortion, and etc., as it is mainly the first two that concern the average user. I do not want you to think that I consider them unimportant but for our purpose they do not influence the handling to any extent.

It will never be known how many fine anastigmats have and will yet be condemned because of improper mounting. This trouble is most common and because the user knows nothing of flatness of field he does not know why he is not getting the results claimed for it. These lenses require the most accurate mounting on strong stiff front boards. The plane of the diaphragm must be exactly parallel to the plane of the plate to get the maximum sharpness and for work on small plates which are intended to be enlarged it is of the utmost importance.

There is nothing like enlarging for showing up the defects of a negative and if the lense is not mounted right you certainly will get them. In figure two is shown how the field of the lens looks when the lens is incorrectly mounted. This figure is also exaggerated to show more plainly, but you can see that the plane of sharpest focus cuts across the plate. This place where the field cuts across the plate is only a line with a diameter of probably one two-hundredths of an inch. If you enlarge to eight or ten diameters what kind of an enlargement do you suppose you would get from such a negative. Of course you can correct this by stopping down but if you do this why are you using a high priced lens? What good is the speed, for which you bought it, if you cannot use it? Do you begin to see now why the anastigmat needs such careful handling?

If you see that its flat field is put on the plate where it belongs your investment will pay the dividends the advertisement talks about but if it is one-fiftieth inch off the right place you might just as well use a rectilinear. Especially is this true if you, as I, make nothing but enlargements from small negatives.

To learn the depth of focus the procedure is exactly the same as for the rectilinear. For hand cameras other than the reflex type the faster lenses with an aperture of F4.5 will be found to have too small a depth of focus to be practicable. Even when stopped down they do not give as good results as those working at F6.3 or F6.8. This is well known among press photographers and in one of the largest cities of the United States I know of three or four staff photographers who have discarded the reflecting type camera with its F4.5 lens for a small plate camera and a F6.3 lens in a multi-speed shutter. They find the speed of F6.3 fast enough and the depth of focus great enough for all purposes. Do you realize the full meaning of that? For these men whose job depends on their pictures, the apparatus I just mentioned is good enough.

As I said before only a little practice is necessary to learn how to get all the lens is capable of. Go to the library and get books on the different points I have spoken of. Study and the putting into practice of what you have read is the only way to learn. The ground glass shows everything and there is no need to expose many plates. Go to it, my friend, and learn to know your lens.

## COMBINATION PRINTING AND ALTERING THE BACKGROUND

BY WILLIAM S. DAVIS

IF good taste and judgment is used in selecting harmonious units for combination, there is no reason why an amateur capable of handling ordinary technical processes of photography should not be able to take up double printing successfully, since the mechanical part of the work does not require more than ordinary skill.

Since the placing of clouds in the blank sky of a landscape or marine view is the most common form of combination printing this will be dealt with first.

In the limited space available it is impossible to go much into the artistic phases of the matter, but as the purpose should be to make the clouds appear a perfectly natural element of the composition as a whole, rather than an addition tacked on as an after-thought, it follows the clouds selected must harmonize in general character with the leading masses of the landscape. Grey day clouds for instance will not fit a sunlit scene, or vice versa, and of course the same applies to such as are lighted from the wrong direction. As regards the latter, however, coming from right or left hand side, it is often possible to transpose the lighting by reversing the cloud negative and printing through the back. Another point when taking clouds for combination printing is to include a bit of the sky-line—then it is possible to place them in the position they

would naturally have appeared if seen when the foreground was taken. The softer, ordinary cloud effects are best adapted to most landscapes, if the latter forms the more important part of the composition. This suggests the desirability of acquiring an assortment of cloud negatives made under various conditions, as to weather, time of day, etc., and such should be marked with this data and the direction in which the lens was pointed.

Grey clouds can be secured without a ray-filter by stopping the lens to about F.22 (U.S. No. 32) and giving  $1/25$  second, but white ones against a blue sky are best rendered by placing a filter on the lens and giving five times the exposure mentioned, or what amounts to the same thing, using an F.8 (No. 4) stop with same speed of shutter. Fast ortho. plates or films should be used.

As the majority of amateurs make their prints upon "gas-light" or bromide papers, we will describe the easiest way of double printing upon them.

First examine a print of the landscape made upon the same grade of paper one intends to use, and note whether the sky shows any decided tint. If it does it must be shaded during printing by keeping a piece of cardboard moving up and down over that portion of the negative, otherwise the tint would affect the brilliancy of the printed-in clouds, unless a dull





*Fig. A.*



*Fig. B.*



Fig. C. Finished Picture—"WESTWARD HO!"

effect happens to be wanted. In any case it does no harm to leave a soft tint near the horizon as it may help to join foreground and clouds better. Should the objects in view not allow the sky being protected in this way, it should be blocked out in the manner described further on.

Having exposed the landscape, develop as usual to full strength, and wash well, but quickly in several changes of water, but *do not fix*. Now squeegee the print face down to a piece of celluloid or thin glass, (old negatives from which the film has been removed serve well) taking care not to leave air bubbles between, see that the reverse side is clean and dry, then place in the desired position over the cloud negative, which can be determined by holding the printing frame up to the dark-room light. A size

larger frame allows latitude in moving print about. Expose about twice the time that would be given the clouds when dry paper is used. At this stage it is not essential to protect the portion already printed. After exposure, place print and its support in water and separate gently, lay former face up on a sheet of glass or in a flat-bottomed tray, and apply the developer to the *sky portion only* with a mop of absorbent cotton. When the effect looks right, rinse and transfer to fixing bath as usual.

In making enlargements the same methods are followed, only the protective film or glass between wet paper and negative is of course unnecessary.

When a number of prints are wanted, or a special printing process is used which cannot be manipulated in the manner described, it is desirable





*Fig. D.*



*Fig. E.*

to make a new negative which shall contain the complete effect desired. If the amateur possesses a long bellows plate camera which will permit of copying an object full size, and the negative wanted comes within the capacity of the apparatus, one can take the combination print (which for this purpose should be made on smooth or glossy paper) attach it to a board placed at perfect right angles in front of the lens, and photograph upon a slow or medium grade plate. A rapid one may be used by taking care to time exposure carefully and then develop up well, but will require more care in this kind of work to secure a clean result. It is impossible to give exact figures for the exposure, on account of several varying factors, but, working by the light of a north window, 30 to 60 seconds with stop 16 would be somewhere near the mark for a plate of medium speed.

If an enlarged negative is desired, it is better to make a combination transparency instead of a paper print. This is then placed in an enlarger (the same as a negative) and a slow or medium grade plate substituted for the usual bromide paper in holder or easel—thus securing a negative in place of a positive image.

While the required transparency may be made on one plate it is more convenient in some ways to use separate ones for foreground and clouds. These can be made by contact printing if desired, or of larger or smaller size by copying in the camera, as in lantern slide making. Most of the focusing enlargers allow of sufficient adjustment of bellows extension between lens and negative to permit of obtaining

the size image desired, while a kit will hold the transparency plates at the end usually occupied by the sensitive paper. Lantern slide or transparency plates are used for this purpose. The latter have the same emulsion as the former, only being made in larger sizes are known as "Transparency" plates. They have about the same speed as rapid bromide paper.

By this method the landscape is printed first, the sky cleared of any veiling by use of a ferricyanide reducer after taking from fixing bath, and after washing and drying is placed in contact in the dark room with a fresh plate, film to film, which are then kept together by bits of gummed paper at either end. These are placed so the image of clouds will come in the required position, keeping the landscape transparency between the cloud negative and fresh plate, and the exposure made. Upon development an image of the landscape will be found upon the cloud transparency, so after fixing all that is necessary is to remove all traces of same below the sky-line by the local application of a reducer. When washed and dried this plate is placed over the landscape in correct register and bound together with lantern slide binding or other gummed strips. I usually make such positives of standard lantern slide size so they will be available for projection purposes after the enlarged negative is made, but of course this is a matter of personal choice.

With reference to the illustrations of a shore scene: Fig. A shows the appearance of the foreground taken on a cloudless afternoon, while B represents the sky portion as it appeared



after clearing all which came below the outline of rocks. Fig. C is a print made from a new negative of the combination.

If the above description seems long, it is due to the fact I have tried to make each step clear enough for a beginner to follow, rather than because of any great difficulty in technical manipulation.

Now about changing the background of a subject. We may wish to remove some obstructive details from an otherwise pleasing view, which could not be kept out of the field of vision at the time; or again some snapshot of a figure or animal in a pleasing pose may have been taken against an unsuitable background. Whatever the cause, the first thing toward improving matters is to block out the objectionable parts in the original negative. In Fig. D, for example, it was felt that the line of scraggy trees in the middle-distance not only interfered with the boat mast but distracted attention from the broad masses which really composed the picture, so all above the skyline was blocked out with the exception of mast and rigging.

Some use red water color or prepared "Opaque" for blocking out parts, but I like artists' oil colors in tubes, light red being good for this purpose. A little is squeezed onto a piece of glass and mixed with a few drops of Siccatis de Courtray or Japan drier. The sky or other part is then coated with this, using a soft sable or camels hair brush, and when the boundary line is nearly reached the edge of the

color may be slightly softened by stippling lightly with a clean brush. If fine lines, like vessel's rigging, cut against the background it is often best to let the color go over them to start with, and then remove it in those places by tracing the lines with a finely pointed toothpick, thus saving the trouble of trying to stop out all around them. If the negative is kept in a fairly warm room the paint should be quite dry within twenty-four hours.

The print designated Fig. E gives an idea of the improvement brought about in this manner, only in finishing it the white sky, caused by blocking out, was toned down by rubbing over with a little powdered lead; had there been enough sky shown in the composition to make it desirable however, clouds might easily have been printed in.

With such subjects as figures or animals as a single feature of interest nearly filling the composition, pleasing results are frequently obtained by blocking out the upper portion of the background, and then stippling the color down toward the bottom so as to obtain something of a vignette effect. After a little skill has been attained in stippling it will be found the oil color offers a very flexible medium for such work, whether used upon the film or glass side of the negative. The background in prints made from negatives so treated can be greyed over by rubbing with lead, as described in a former article, or an entirely new background printed in from another negative, in the same manner that clouds are added to a foreground.

## IRON DEVELOPERS

BY MATTHEW WILSON.

### PART TWO.

ONE very important factor as respects ferrous oxalate development is the greater cleanliness of the iron bath in action as compared with the ordinary pyro developer, and those of the developers of the benzine series which have been found to possess analogous properties. Such baths, as every operator knows to his cost, are, almost without exception, subject to rapid oxidation during the developing operations, a circumstance due in a great measure to the presence of the caustic alkali necessary to the production of the chemical effects upon which the building up of the image essentially depends. Unfortunately, as a result of this process of oxidation, staining of the negative is very apt to ensue, this defect being, indeed, always more or less in evidence in cases in which the developing operations have, either through inadequate exposure or other cause, been somewhat protracted.

With potassio-ferrous oxalate, on the other hand, owing to the neutral condition in which the bath must be maintained during the development in order to obtain the best results, oxidation of the solution by the action of the atmosphere, though not entirely obviated, takes place only with comparative slowness, in consequence of which circumstance staining of the image is a phenomenon of very rare occurrence. It would seem also, that in cases in which the oxalate bath is exclusively em-

ployed, the risk of disfigurement of the image by transparent spots and markings, due to the formation and adhesion of air-bells on the film during the development, is greatly reduced, a fact probably due to a species of special cohesive affinity for the gelatine film peculiar to this re-agent.

A matter of even more consequence, technically speaking, is, that, according to Abney, the flatness of image which is so apt to result when an over-exposed gelatino-bromide plate is treated with one or other of the alkaline developers, may be considerably mitigated by the use of the oxalate bath. This statement, however, should be qualified by mention of the circumstances, noted by other experimenters, that the presence of a bromide restrainer is essential to the production of the effect in question. It is certain, at all events, that the addition of bromide to the oxalate bath is productive of a restraining action on the process of development much more marked than is found to result when the exposed plate is treated with an alkaline developer to which an identical percentage of bromide restrainer has been added.

Another advantage with which this developer has been credited is this, that its selection is calculated to diminish that tendency to frilling of the gelatine vehicle which, with certain brands of



plates and films, is not infrequently a feature of alkaline development.

Furthermore, certain well-known authorities have stated that by the substitution of the oxalate bath for the pyrogallol developer, partial if not complete immunity may be secured from these bugbears of the dry-plate photographer, red and green fog.

As an additional advantage, mention should, too, be made of the circumstance that, unlike pyro and the other developers of the alkaline type, the developing properties of the oxalate bath, when once it is mixed for use, are found to subsist almost unimpaired for a period of at least half an hour, and thus may be utilized, especially in cases of over-exposure, for the treatment, in immediate succession, of two or more of a number of exposed plates, without the necessity for replacing the bath already used by a fresh portion of stock solution between the operations. Some operators, it is true, express themselves

as averse to the repeated use of the iron bath, on the alleged ground that, in the course of the prolonged manipulations, the active properties of the solution are weakened to such an extent as is prejudicial to the quality of the resultant image. Others, again, draw a distinction, as regards respective developing values, between the behavior of the oxalate bath, repared, as it most commonly is, by simple admixture of solutions of ferrous sulphate and potassium oxalate, and that of the bath, hereinafter to be described, which is obtained by dissolving solid ferrous oxalate in an aqueous solution of potassium oxalate. Certainly, there seems little doubt that, for general purposes, the latter form of bath is much to be preferred in ordinary practice; but, notwithstanding this, there is some reason to conclude that the strictures which have been passed on the common form of bath in respect of its alleged shortcomings in the special circum-



"MEDITATION"

*Nancy Ford Cones*

stances referred to, are in the main unmerited.

On the other hand—and this, in cases of inaccurate or dubiously accurate exposure, is, of course, a serious if not vital defect—the iron developer, it is found, is, as regards the power of compensating for a wide latitude in exposure, lacking in those qualities which, by the use of the customary restraining expedients, are readily obtainable with the pyro bath and the other analogous developers of the alkaline series. Whilst to a certain extent both over-exposure and under-exposure may, indeed, be corrected in the course of development with the oxalate without special difficulty, this with exposures abnormally excessive or defective is practically impossible, and accordingly under such circumstances, the substitution of an alkaline developer for the iron bath is usually necessary.

Another disadvantage sometimes experienced by the tyro, but one, fortunately, which is capable of being easily remedied, is the difficulty which occasionally arises as to the preservation of the oxalate bath in a perfectly neutral condition. Generally speaking, experience shows that the presence of free alkali in the developer is detrimental to the quality of the negative, by causing cloudiness in the shadows and deeper half-tones. An acid condition of the bath is equally objectionable, not only because of the fact that the presence of the acid serves to accentuate and exaggerate the natural contrasts of the subject, thereby causing a harshness in the quality of the image, but also because it operates very decidedly to retard the progress of development. A neutral condition of the bath is, there-

fore, essential to the production of the best results with this developer, and, in order to ascertain if this state of things subsists, the mixed stock solutions should always be tested prior to development by means of litmus papers. The absence of any change of color, whether on testing with the red paper or with the blue, will warrant the conclusion that the bath is in a chemically neutral condition. If, however, a red color should result on testing with the blue paper, the acidity of the bath must be neutralized by the careful addition of a few drops of a weak solution of potassium carbonate. If the developer be alkaline—indicated by the blue obtained on testing it with a red paper—the defect may be similarly corrected by the use of a weak solution of oxalic acid.

A more troublesome and not uncommon result of the employment of the oxalate bath is the production, during the operations of washing the plate, of a white deposit of calcium oxalate in the pores of the film. This phenomenon is invariably due to the presence, in the washing water, of an excess of soluble salts of lime. As a cure for the evil, certain writers have advocated the treatment of the plate, subsequent to development and before fixing, in a very weak solution of hydrochloric acid. On chemical grounds, however, such a remedy must be condemned as impracticable, seeing that, in reality, in order completely to dissolve out the insoluble deposit, the employment of a moderately strong acid solution is actually necessary, and, moreover, that such a solvent cannot safely be used for the purpose without grave risk of detriment to the appearance of the image.



As a preventive measure, the use of pure water for washing purposes is a preferable expedient, but when such is not obtainable and only hard water is procurable, the latter should be treated, prior to the washing operations, with a solution of neutral potassium oxalate, in order to precipitate beforehand any calcium compounds present.

The only other feature, of conspicuous magnitude, of an objectionable kind, that is liable to occur during development conducted by means of the oxalate bath, is that which is found to arise specially in the case of paper prints. When these are treated with this developer, a brown precipitate of oxide of iron is exceedingly prone to deposit itself in the interstices of the cellulose web, and this unless special measures be taken to effect its removal, is, naturally, harmful to the pictorial quality of the finished print. The coating of oxide may be dissolved out by treating the prints, after development, for three minutes in a 1% solution of citric acid. Care should be taken to remove all traces of the acid bath by rinsing the prints in water after treatment and before their transference to the fixing solution.

Passing next to the matter of formulae, the common form of bath is ordinarily prepared for use by adding (1) a saturated solution of ferrous sulphate to (2) a saturated solution of neutral potassium oxalate, in the proportions by volume of one part of the former to three parts of the latter. For certain special purposes, as also during warm weather, it is sometimes advisable to increase the proportion of the oxalate solution; but in no case should this exceed six volumes per unit vol-

ume of the iron solution. The stock solutions should be made up by dissolving the salts in boiling water. For preservative purposes, citric acid is usually added to the sulphate solution. Opinions differ somewhat as to the proportion of acid actually requisite, but six grains per fluid ounce is the quantity recommended for use by the majority of experienced oxalate workers. According to Dr. Hauberisser, of Munich, the desirability of the oxalate bath in action may be considerably increased by the addition of one volume of a 20% solution of Rochelle salt (potassium sodium tartrate) to every four volumes of the stock ferrous sulphate solution. The mixture, he states, should be boiled and allowed to cool before it is added to the stock oxalate solution.

As above prepared, the oxalate bath always contains a large percentage of potassium sulphate, this salt being a necessary product of the double decomposition which ensues on mixing the stock solutions. In order to get rid of this photographically useless constituent, and thereby to enhance the active developing properties of the reagent, it is advisable, whenever circumstances permit of the alternative, that the bath should be made up and employed in the form of a one-solution developer. To effect this, a saturated solution of potassium oxalate in boiling water must be prepared, to which ferrous oxalate in the solid form must be added in excess, the mixture being well agitated until the iron compound ceases to dissolve. The red solution should then be allowed to cool, and, after filtration, transferred for preservation to a stoppered bottle. If any difficulty be experienced in obtaining

ferrous oxalate, that salt may be easily prepared by precipitation, by treating a hot saturated solution of ferrous sulphate with oxalic acid, and washing by decantation the copious yellow deposit of oxalate thereby produced.

The restrainer customarily used with the oxalate bath is a 10% solution of potassium bromide. The quantity of restrainer to be added to the developer will, of course, depend very largely on the extent of the over-exposure which it is required to counteract. Ten drops per ounce of developer should, however, amply suffice in the majority of cases. Some operators, it is well to mention, prefer to omit the bromide altogether, and in cases of known over-exposure employ instead a bath composed of equal volumes of old and new developer. By this method of treatment, it is claimed, brilliancy and vigor of image are obtained without the accompanying harshness as regards contrast that is so frequently observable in negatives which have been treated with a developer containing an excess of bromide. The addition of from one to ten drops of a 1% solution of hypo to the developing bath is recommended by some writers as serviceable for accelerating the action of the solution in cases of under-exposure.

Concerning the properties of the remaining developer of the iron series, viz., the ferrous citrate bath, it need only be stated that these much resemble in character those of potassio-ferrous oxalate. The citrate, however, is not

nearly so liable of oxidation during the process of development, upon which account the bath, when once mixed, may be repeatedly employed for the particular purposes for which it is required:

The following are two standard formulae for the preparation of the citrate bath. Formula No. 1 gives cold tones, and No. 2 warm tones:

#### No. 1.

- |                                |            |
|--------------------------------|------------|
| A. Potassium citrate.....      | 1 ounce    |
| Neutral potassium oxalate..... | 120 grains |
| Distilled water.....           | 4 ounces   |
| B. Ferrous sulphate.....       | 1 ounce    |
| Sulphuric acid.....            | 4 drops    |
| Distilled water.....           | 4 ounces   |

For development, mix one volume of B with four volumes of A.

#### No. 2.

- |                          |          |
|--------------------------|----------|
| A. Citric acid.....      | 2 ounces |
| Ammonium carbonate..     | 1 ounce  |
| Distilled water.....     | 5 ounces |
| B. Ferrous sulphate..... | 1 ounce  |
| Distilled water.....     | 5 ounces |

For development, mix in equal volumes. A 5% solution of sodium chloride should be used for restraining purposes in place of potassium bromide.

In order to remove all traces of insoluble iron compounds, the use of the citric acid clearing bath already described as necessary for the treatment of paper prints that have been developed with potassio-ferrous oxalate is equally indispensable in the case of those that have been produced by means of the citrate developer.





"BURNING LEAVES"

Wm. Ludlam, Jr.

## AUTUMN AND THE HAND CAMERA

BY WM. LUDLAM, JR.

AUTUMN is the time, when summer's heat is being tempered to the approach of winter; when nature's activity of the year is passing through the harvesting period to the season of rest; when we begin to grasp the fruits of our toil in collecting the rewards of past effort; in other words, the reaping time. After the heat of summer has abated we settle down in sober earnest to rake in our "chestnuts" for winter roasting.

The camera, which, during the summer months has been rushed by the vacation hit-or-miss madness, now settles down to the production of real serious results. The cool breeze of autumn tones down the desire for haste and the mind once more controls the eye and the hand; reflection guides

the helm of endeavor and each picture is spaced and thought out in lines of true artistic perfection—at least, that is as it should be. Having safely passed through spring's "fever" and summer's mad hurry of so called "rest," autumn should find us in a mood of grateful acknowledgment, ready to perform wonders.

The fall of the year again brings up the color problem. The brilliant greens of Summer are changing to yellows, reds and browns and the necessity of orthochromatic plates used in combination with a ray-filter becomes self-evident. Note the expression, "with ray-filter," because without its use all the color selecting properties of the orthochromatic plate is practically lost. An ordinary plate,





"OCTOBER"

*Wm. Ludlam, Jr.*

without color sensitiveness, will produce better negatives with a ray-filter than an orthochromatic plate without one and, in like proportion, the ray-filter and orthochromatic plate used in combination will outclass the ordinary plate. A four-times filter gives the best results for general landscape work as it shows a very fine selection of color value in the foliage, without making the blue of the sky too dark.

I am like a great many others who, sometimes, do not practice as they preach, and if I am caught in the meshes of my teaching, by contrary example, the only thing to keep in mind is to do as I say and not as I perform. I have in mind one particular case to illustrate this. While busy writing an article on "Winter Photography," in which I was strongly recommending the use of double-coated, orthochromatic plates, a sudden and unexpected snow-storm comes

on and, in taking quick advantage of the opportunity offered for making a good example of my "Winter-Photo" preaching, I grabbed the first plate-holder my fingers touched, not knowing, until after I made the exposures, that it contained just "ordinary" plates. My plate-holders are all numbered and as I load them I make a record of each kind of plate put in. This record I always have handy in my camera case for reference in making exposures. (I don't like to waste a good plate on a poor subject and always have at least one holder loaded with the "ordinary" kind for this contingency.) The two exposures turned out to be pretty good so I took a long chance and sent them in with the article. The editor very kindly passed them for reproduction; but I have always had a kind of a sneaking idea that he knew all the time I wasn't living up to my profession. Keep





"THE HARVEST PARADE"

Wm. Ludlam, Jr.

right on with the treatment for successful photography as outlined in the different numbers of this magazine and you will come out all right.

To return to the ray-filter. In using it the exposure must be ample to get full value, about one second at F:16 for ordinary open landscapes. Where shadows are deeper and very little, if any sky shows, as in woodland scenes, a darker filter may be used to advantage, say six times; but for all general purposes the other is best.

We sometimes sing an old hymn in our church entitled, "What Shall the Harvest Be?" And that's the great question, "What shall the harvest be?" And the answer is in proportion to the amount of effort we expend in going out after it, the more work the larger the reward. There are a lot of simple-minded, good old souls who sit

idle in the pews waiting for the harvest to fall through the roof and drop into their expectant laps. They may at the end, through the virtue of patient waiting, receive a few stray grains of reward; but there isn't any doubt that the full richness of the crop is going to the fellow who puts his shoulder to the wheel of personal endeavor and gets out after it, to meet it half-way at least. Faith without work is as a modern high-power gun without ammunition. It looks like business but is powerless to execute.

Shouldering a camera is like shouldering any other responsibility. It returns interest only as principal is invested.

A perfect print as "a thing of beauty, is a joy forever," and brings the added satisfaction of a personal work well done. Your's the effort, your's the reward.

## YOUR ALBUM

BY ARTHUR C. BROOKS

THE most universal use to which the photographic album is put is to hold prints depicting various and sundry happenings, generally of a personal nature, occurring from time to time. The utility of the album is in guarding against the loss of otherwise loose prints, and in keeping them in a convenient form for examination. And because our sympathies are appealed to more by the sentiments attached to these photographs than by their artistic value, is no apology for haphazard work. A photograph worth mounting at all is certainly worth mounting well.

I recently examined an album which, considering its contents, was an excellent example of what an album should not be. It was one of the modern loose-leaf kind, well made and of good material. The contents included a great variety—from a tiny souvenir of Aunt May's first auto ride to a post card view of the club's last picnic. This ample assortment was reasonable enough, but the method of mounting was execrable. The prints were stuck in with so little consideration of the resulting collection that the general effect was one of decided mediocrity.

When purchasing an album one has a choice of two kinds. The first is known as the "made-up" album, the leaves are immovable and of only one shade. The other is the loose-leaf, previously mentioned, containing leaves of different shades to match the

respective prints. Accordingly, your black and white prints may be mounted on black or gray toned leaves, while your re-developed or sepia prints belong to those of brown shades. Colored prints appear to best advantage on plain white. Heavy drawing paper, cut to size, is a good substitute if white leaves cannot be purchased.

The loose-leaf album is unquestionably the superior of the other. Its primary virtue lies in its ease of access. If one devotes an entire album to one particular branch of photography, that of flowers, for instance, the loose-leaf album allows him to arrange and rearrange his collection just as he desires. And again, if a print is mounted poorly or is accidentally damaged while in the book, the entire leaf may be easily removed and a new one put in its place. This is, of course, not possible with the bound album.

Consider the "album de luxe." This most artistic container of photographs cannot be purchased. The leaves are formed of the regulation photograph, printed so as to allow a generous border of white. An opportunity is presented for matt work, border-shading and clever spacing. The entirety is then bound (the services of a professional binder are advisable) in white kid or some similar leather and the exterior neatly lettered. This album is ideal for special collections and while the cost may seem prohibitive the result is well worth while.





1 *Improper Mounting and Poor Selection of Subjects*



2 *Proper Mounting and Selection*

Perhaps a few words on the mounting of single prints would not be inappropriate here. It is easy to err in this work and the poor mounting of a print certainly detracts from its value.

As to the position of the photograph on the mount—place it anywhere but in the center. The most popular position is one in which there is more space below than above and an equal amount on the sides. However, there are numerous positions open to the selection of the individual worker. The main point is to preserve harmony throughout.

Leaving the single mount aside let us consider multiple mounting. The body of the mount is of heavier material than the papers attached to it, to prevent a flimsy whole. For an example let us take a black and white print of average tone. We use a dark body on which we paste, by its top edge only, a sheet of thin, gray paper. Then, if desired, a sheet of pure white. The print is attached to this. The resulting whole should show the print edged by about one-eighth of an inch of white, a quarter or three-eighths of an inch of gray and an inch or more of black. These figures are only approximate; the proper amounts depend upon the size of the prints and the likes of the maker. It is difficult, if not impossible, to prescribe one or two schemes which will provide mountings suitable for all prints. As in the size of the spaces this depends entirely upon the print itself and upon the desires of the maker. With ex-

perience comes practice and practice makes perfect.

The mountant, or the material with which the print and papers are cemented together, is always the bane of the beginner's first efforts. It is usually flour or starch paste, and as there is considerable moisture in this it is difficult to prevent cockling or puckering of the thin print. This trouble is generally obviated by smoothing out the air bubbles before the paste becomes set, and then placing the whole thing under pressure for a day or two.

Dry mounting will put an end to this pernicious trouble, but some skill is required to have the mountant work properly. This consists of sheets of tissue coated with a kind of shellac, and dried. It is interposed between the print and the mount and a not too hot iron is passed over the whole. This is where the trouble occurs. If the iron is too hot the tissue will stick to the mount and not to the print, and the opposite will result if the iron is too cold—the tissue will adhere to the print and not to the mount. The tissue should be lightly touched with the tip of the iron and the print placed upon it. Then both are trimmed and laid upon the mount. Use a clean piece of paper between the iron and the print.

The virtues of this method of mounting lie in its ease of operation, after you have practiced, and the absolute purity of the shellac used—no deleterious matter can reach and ruin the print as is sometimes the case with paste mountants.



## MAKING ENLARGEMENTS FROM LANTERN TRANSPARENCIES

BY ALFRED J. JARMAN

**T**O make an enlarged negative from an ordinary lantern slide is not a difficult matter at all, providing one possesses an enlarging lantern. If the lantern slide is already finished with both mat and binder it will not be necessary to remove these except in cases where the enlargement must be made clean to the edges.

The usual lantern slide measures  $3\frac{1}{4}" \times 4"$ , and at times it may be necessary to remove the binding and mat. The use of paper in this particular instance cannot be entertained, because the result would be a negative print, the highlights and shadows being all reserved unless a special negative is required, where certain effects are intended, by working upon the negative. To secure these effects, for the present, however, it is intended to explain the method of obtaining a negative upon a glass plate, so as to be serviceable for the production of paper prints either by direct printing or by development. In the first place the room in which the enlarging operation is to be performed must be quite free from extraneous light, so that perfect negatives may be obtained, which when obtained, may be used for any kind of paper, rapid or slow, or for the use of printing out paper. Any good lantern slide may be used for producing enlarged negatives from plates  $6\frac{1}{2}" \times 8\frac{1}{2}"$  or  $8" \times 10"$ . The way to proceed is as follows: Place the transparency in a

light wooden frame, the same as is used for the stereopticon, cover a piece of smooth board with dead black paper, pasted thereon and dried, arrange this board in front of the enlarging apparatus so that it may be made to slide readily to and fro, place thereon a piece of thin, white cardboard, held in position with a couple of glass push pins at the bottom, and one in the centre at the top, not pressed through the board, but so placed that they hold it in position so that when it is removed, a sensitive plate may be substituted in its place. The image may now be focused upon the cardboard, so as to prevent a sharp image, and then the stop inserted with a smaller hole, or the diaphragm turned so as to sharpen the image, and reduce the amount of light. These small items are necessary to secure a good negative. Have ready to hand the size plate it is intended to make the enlarged negative upon, say  $6\frac{1}{2}" \times 8\frac{1}{2}"$ . As an illustration, the kind of plate well suited for this work is what is known as the process plate. It is comparatively slow for camera work, but just the thing for the work in hand, as the writer has experienced when making negatives from lantern slides. Having focused the image to the size and position, a cap should be made for the lens, where a piece of ruby glass is inserted in place of the opaque, and by this means it may be plainly seen

upon the focusing board whether the plate is in the correct position before exposure is made. All being ready the cap is removed and the exposure made. If the stop is F32, and the light employed is a fifty candle power tungsten lamp, then an exposure of twenty-five or thirty seconds will be required, but to be accurate a trial of this kind must be made in the first place. The time here given, however, will be found to be about right. The lens now having been capped, the light may be extinguished and the developer applied. The developer to be used will determine the quality of negative as much as the time of exposure. The following developer will be found to answer, which should be made with hot water, and allowed to become quite cold before use. It may be used many times over, especially if an ounce or two of fresh developer be added.

#### DEVELOPER FOR THE ENLARGED NEGATIVES

Hot water.....	12 fl. ozs.
Metol.....	40 grains
Hydroquinone.....	25 grains
Sulphite of soda (dry).....	2 drams
Carbonate of soda (dry).....	3 drams
Potassium bromide.....	8 grains

All the various operations, except the mixing and compounding of the developer, must be carried out under a ruby colored light. In developing use a black tray, preferably a deep hard rubber tray. The exposed plate may now be placed in the tray and five ounces of the developer poured quickly over it in one sweep. Always keep the tray covered during development. A piece of cardboard, 8 x 10, preferably yellow strawboard, is well suited. Rock the tray occasionally; this will

prevent cobweb markings. In the course of one minute the plate may be examined, when it will be found that an image of excellent quality is being formed. Cover the plate again, when in the course of two or three minutes development will be complete. The plate must now be well rinsed under the faucet and placed to fix in the following fixing bath:

#### FIXING BATH FOR THE ENLARGED NEGATIVE

##### A.

Water.....	20 fl. ozs.
Sodium sulphite (dry).....	1½ ozs. av.
Hypsulphite of soda.....	7 ozs. av.

##### B.

Water.....	20 fl. ozs.
Common alum.....	13 drams
Potassium bisulphite.....	½ oz. av.

When the salts are dissolved completely in each, add B to A; stir well. The solution is then ready for use. The negative will fix rapidly in this bath; perhaps in two minutes. Leave it in the solution for five minutes, or a little longer; ten minutes will do no harm, but produce a very brilliant and clean negative. Wash the negative well for half an hour. Meantime, take a tuft of absorbent cotton, wet it, and wipe the surface of the negative carefully all over; first lengthwise and then crosswise. This will insure a clean surface, when the negative may be placed in a rack to dry. If it is desired to produce a paper negative, so that certain desirable effects may be introduced, this may be done by using a thin bromide or chloride paper, the kind that has no baryta coating. There are several kinds of thin paper made to-day that answer the purpose well, and when developed with the de-





"OVER BEAVER DAM," Algonquin Park

R. R. Sallows

veloper here given will produce a negative that almost entirely eliminates the grain. To get rid of the grain effect when a paper negative is used there are a number of ways, but the best plan with which the writer is acquainted is to pour a small pool of glycerine upon a clean glass plate, the size of the paper negative, say,  $6\frac{1}{2} \times 8\frac{1}{2}$  or  $8 \times 10$ , then place the paper negative, *back down*, upon the glycerine, place upon the face of the print a sheet of clean blotting paper, then upon the blotting paper place a piece of smooth paper such as manilla paper, or fools-cap, then squeegee upon this, so that the paper negative becomes pressed into close contact with the glass. The blotting paper will absorb any excess of glycerine, while the paper negative will adhere with amazing tenacity to the glass, when prints of excellent quality may be made therefrom. Previous to the attaching of the paper

negative, any working up may be made upon it, with brush and pencil, and with skill effects may be secured that are impossible with a glass negative. The storage of these negatives presents no difficulty, all that is necessary is to place the glass plate with the glycerine attached negative into a tray of cold water, the paper negative becomes released, while one more washing in clean, cold water completes the operation, when by blotting the negative well, it may be suspended to dry, and packed away with perfect safety. The above simple plan is superior to either waxing or oiling; it can be depended upon, for translucency ridding the paper of grain, and effective in printing. With just ordinary care enlarged negatives made from good lantern slides are in no way inferior to negatives made direct in the camera, while any spotting that may be found to be necessary, may be easily accom-

plished upon these enlarged negatives. More than this prints made from these enlarged negatives are saleable articles. There is a demand for them for illustrations in many magazines and good prices can be obtained for such prints which will more than repay those who care to undertake the work, to say nothing of the pleasure and knowledge

gained by the successful working of the process. Most things to-day are measured by their commercial value. This process of making enlarged negatives from lantern slides is a branch of photography that is both instructive and profitable, where those practising it desire to make it a commercial success.

## PHOTOGRAPHY UNDER DIFFICULTIES

BY A. MANN

THE writer of this article, after having for some years worked in large and luxurious permanent dark-rooms fitted with electric light, gas, and water, suddenly found himself dumped down in a village five miles from the nearest railway, with no water other than rain from the roof collected in an underground pit with a pump above, no gas, and no room that could be spared for a dark-room. As many readers of this paper may sooner or later find themselves in a similar position, or some may hesitate to take up photography at all for like reasons, a few hints on the best way to adapt one's hobby to these conditions may be of service. First of all, let me say there is not the least need of a dark-room at all—at any rate, not for all sizes up to half-plate. It is quite a simple matter to load plates into any camera or plate-holders in a changing bag by the sense of touch only and after exposure to transfer them to a developing tank, and this is one of the most certain and cheap methods of developing. There is no risk of fog, since the plates are in total darkness

the whole of the time; no temptation to leave under-exposed plates in too long “just to get a bit more detail out, you know,” with the result that the gradation is too steep, or to take over-exposed ones out too soon and get flat negatives in consequence.

Some think that because the tank holds a lot of developer the method is expensive, but the contrary is really the case. Most quarter-plate tanks hold about 20 ozs. of liquid and take six plates at a time. If 4 ozs. of normal strength developer is diluted with 16 ozs. of water, this will develop the six plates in about half an hour with the developer about 60 degs. Fahr.; moreover, the same developer *can*, if the photographer is very keen on economizing, be used for six more plates; but it is far better to use four more ounces.

Provided a suitable developer is used and the tank is either reversed several times during development, or, if this is not possible, the inner tank raised and the liquid allowed to drain out and then fill up again, there is nothing to lose and everything to



gain by tank development. For those workers who use Tabloid preparations, rytol is a developer that works excellently in diluted form; two pairs of tabloids are dissolved in 20 ozs. of water, and will complete development in 15 to 30 minutes, according to temperature of bath and style of negative desired. Glycin has the reputation of being one of the very best developers for the purpose, and a good formula is as follows:

Glycin. . . . . 1 oz.

Soda sulphite. . . . .  $2\frac{1}{2}$  ozs.

Potassium carbonate. . . 5 ozs.

Water (hot). . . . . 60 ozs.

This is of normal strength and will be diluted with about four times its bulk of water to do its work in about half an hour. The writer has always found the standard M.Q. developer formulæ work well with stand development, but some photographers have complained of markings with it. Before leaving the subject of developers let me warn my readers that rain or well water should always be boiled and allowed to stand for some time before using for making up any photographic formulæ.

With regards to tanks, the best forms are undoubtedly those which have some arrangement to guide the plates into their respective grooves, also some means of either reversing the whole tank or readily agitating the contents during development. With this type there is no difficulty at all in filling the grooves by touch alone in the changing bag. In spite of what has been written to the contrary, I have never found any ill-effect in using the tank for fixing purposes, and I have had two zinc ones in use thus for some years; the plates

should certainly be washed thoroughly in the tank as well, then the latter gets thoroughly cleansed at the same time.

There is not much to be said about changing bags except that for home use they can scarcely be too large. A half-plate size is much easier to handle materials in than a quarter-plate, and it is quite a good plan to construct a sort of skeleton box out of thin canes or wire and to insert this inside the bag to keep it distended; this leaves the hands much more free.

When the supply of water is distinctly limited, waste is unforgivable, and something better than repeated changes is necessary. Here is where the commercial hypo eliminator is useful, and will thoroughly remove all trace of hypo in a few minutes with the minimum expenditure of the "precious fluid" for either plates or paper, and will at the same time thoroughly cleanse the tank.

The chief difficulty of the rustic photographer will probably be enlarging, and if daylight is used some sort of dark-room will have to be fixed up by blocking up the window of the most convenient room, leaving a suitable opening for the camera; but if an enlarging lantern is available, then any room can be pressed into service at night, and one virtue of the rural solitudes is that there is not likely to be a street lamp outside the window, as so often happens in town, the only thing to guard against being the full moon shining in the window. For illuminant the spirit incandescent lamps sold for the purpose are excellent and inexpensive, both to purchase and use, but if the photographer is also a cyclist and has an acetylene lamp, it will fre-

quently be found that this will serve excellently if the hood and lens are detached, leaving the burner free. Adjustment of height is easily managed by standing the lamp on a sufficient quantity of old negatives, and exposures are quite reasonable, the average burner enabling exposures of about one minute to be given when enlarging from  $\frac{1}{4}$ -plate to 10 in. by 8 in., using

F/11 (nominal) and an unstained clean negative and rapid bromide paper.

P.O.P. and gaslight papers, of course, present no greater difficulties under these conditions than they do in town, the latter being worked in the evening and exposures made by burning magnesium ribbon.—*The Amateur Photographer*.

## DON'TS FOR BEGINNERS

**D**ON'T get angry about the price of plates. They are good value anyway.

Don't forget to buy an exposure meter, and learn how to use it, before you start on your holidays.

Don't, when taking a picture, with your back to the sun, include your own shadow in the foreground.

Don't forget to test the view-finder and focussing scale of a new camera *before* starting on your holidays.

Don't fail to send prints to people to whom you have promised them. They will not forget, even if you do.

Don't attempt to polish so delicate an optical instrument as your lens with anything but the softest silk.

Don't, when making short exposures, forget that the nearer the object is to the camera the longer the exposure required.

Don't leave your camera home on a rainy day. You may miss excellent pictures in the misty, moisture-laden atmosphere.

Don't pull out the tabs of film-packs too violently when changing films. By pulling slowly and deliberately, all markings can be avoided.

Don't leave your camera lying about in bright sunlight. It does not do the instrument any good, even if light does not get in and spoil the film.

Don't forget to use ortho. plates and films for most outdoor subjects. Improvements in results will amply repay the little extra care necessary.

Don't smoke in the dark-room. Many a promising batch of fine negatives have been hopelessly fogged by the careless striking of a match to light a pipe.

Don't forget to repack plates and films as carefully as they were originally, if they are to be kept for development until you return home after the holidays.

Don't forget to turn your back to the sun or brightest light when changing spools of film or when pulling out or replacing the shutter of the dark slide.

Don't, unless you can possibly help it, change plates in strange dark-rooms when traveling. Either change in your room at night in total darkness, or use films.

Don't forget to take a box of dark-room pins with you on tour. They are



always handy for pinning a blanket or two over the bedroom window when plate changing.

Don't expose on street scenes at anything up to 1-500 of a second; they can generally be successfully taken at exposures ranging from 1-20th to 1-40th of a second.

Don't take hand camera shots on windy days without buttoning up your coat tightly. The wind may get enough grip to give movement to the body and blur the exposures.

Don't, if you want your plates to dry quickly, place them closely together in the same rack. The secret of quick drying is to allow them free access of air, and plenty of it.

Don't forget that it is no economy to use badly kept or old developers; the cost of plates and paper thus wasted would probably be more than the cost of fresh solutions.

Don't fly to the fastest plate on the market. The rule to use the slowest plate that your subject demands is a good one, and, if followed, your proportion of failures should be considerably reduced.

Don't, after filling your slides, open your dark-room door and leave your box of unexposed plates uncovered. How many experienced photographers have forgotten this, and how many plates have thus been wasted!

Don't be led away by the novelty of new phases of figure work when abroad. Consider the pictorial possi-

bilities and the background. Snapshots of local costume, etc., can be purchased at the local picture-postcard shops.

Don't attempt to dry celluloid film negatives with methylated spirit; they will shrink and buckle up into all manner of shapes. The advice to dry negatives by this means only refers to glass plates, which can be treated without harm resulting.

Don't think it an impossibility to photograph with a hand camera held above the head. It may sometimes happen that this is the only way of securing a particular subject. The camera should be held upside down, so that the view-finder can be seen by looking upwards into it.

Don't leave your tripod screw behind. To keep it always attached to the tripod head is a wise proceeding. Few things are more exasperating to the photographer on a ramble or tour than to find when about to set up his camera that his tripod screw is missing.

Don't fail to bear in mind that the temperature has an important influence on development. In a high temperature the first appearance of the image and completion of development is considerably less than in a low one, so much so that in very cold solutions it is sometimes impossible to obtain sufficient density.—*The Amateur Photographer*.





"ROSES"

J. H. Garo





# CURRENT EVENTS *and* EDITORIAL COMMENT

WE may expect dull days before many weeks are over, but that need not mean putting the camera away in its winter quarters. Among the subjects that can be quite well dealt with by the amateur in the autumn months in broken weather may be mentioned domestic interiors, with or without figures. Those who have not yet opened out this subject in company with a camera will be agreeably surprised to find what a lot of subjects may be found without going outside the house. Until a little experience has been gathered it will be as well not to attempt the inclusion of figures. A rainy day will probably mean increasing the exposure, but in not a few cases it will be found that the softened lighting of the somewhat obscured sky, together with the light reflected from the wet ground outside the windows, gives a better effect than can be got on a fine day. It is quite a common mistake to suppose, as many beginners do, that a stand camera and a special wide-angle lens is essential for this class of subject. Indeed a tripod may easily be a positive hindrance in small rooms where we wish to avail ourselves of every inch of space. By placing a camera on, say, the shelf of a wall bookcase we can

often gain a couple of feet, when compared with the approach afforded by an ordinary tripod. Often there is a temptation to use a wide-angle lens when a narrower angle would give a less crowded looking picture, hence the moderate angle lens usually fitted to a hand camera acts as a wholesome check in this direction. The tyro may be warned against the mistake of placing the camera too high above ground level. It is most important that the exposure be on the generous side, and the development had better be on the under rather than the over side.

☆ ☆ ☆

Photography has now arrived at such a stage of sub-division and specialization that the ordinary amateur has little and the general public still less idea of the many by-ways in science where it is now being used as an aid to research. It is therefore no easy matter to open out a previously untrodden path, but we think that credit in this direction is due to Dr. Reginald Morton. Recently he brought before the notice of the Royal Photographical Society, some remarkable results in radiography of the internal structure of flowers. The special point about these results is the

startling degree of detail shown by these X-ray prints. One's general idea of a picture obtained in this way is anything but a suggestion of fine detail, *i. e.*, something more suggestive of a mass of cotton wool. By way of example we may refer to just one of Dr. Morton's pictures of a flower of one of the narcissus order (*amaryllidacea*), in which not only could we see the axile placentation, but also the individual ovules. Now when one considers that these X-ray pictures—or, as it is now the thing to call them, radiographs—are differential shadow records, or skiagrams—life-size only, it is all the more surprising to have secured such detail-displaying results.

☆ ☆ ☆

HIGHEST HONORS AWARDED ANSCO PRODUCTS AT THE PANAMA-PACIFIC EXPOSITION

Photographers may be interested to know that Ansco products were selected for the highest honors at the Panama-Pacific Exposition, despite the fact that prizes were not sought by Ansco Company, nor were their goods entered in competition. Indeed, a full line of Ansco cameras and Ansco photographic materials was not on exhibition when the judges met.

The Ansco booth was not erected for the purpose of exhibiting goods, but merely to carry out the terms and conditions of Ansco Company's \$5,000 Loveliest Women Contest, one of which conditions was that the prize winning photographs would be shown at San Francisco.

One of the judges who had attended the photographic exhibition recently held in New York City at the Grand

Central Palace under the auspices of the Photographic Dealers' Association, noticing that the Ansco line was incomplete, turned to the jury and remarked: "Gentlemen, the Ansco Company is making the finest small camera I have ever seen. In fact, in my opinion it is the best camera of that particular style in the world; but since they have not seen fit to place it on display we cannot take it into consideration." On the strength, however, of such Ansco goods as were accessible to the jury the Ansco Company was awarded the gold medal, and also the medal of honor, the latter being the highest award for professional photographic goods.

The studio equipment and professional goods which merited and received the highest award represented by the medal of honor, were the following: New York Studio Outfit with Ansco Upright Studio Stand, Ansco Printing Machines and Professional Cyko Paper.

The gold medal was awarded to Ansco Amateur Cameras, Ansco Film, amateur grades of Cyko paper, Ansco and Cyko chemicals.

The line of small cameras referred to by one of the photographic members of the jury as "the best camera of that particular style in the world," and which could not be taken into consideration because not on exhibition, is that represented by the Ansco Vest Pocket series.

The proof piles up daily that "If it isn't an Ansco it isn't the best" is not a mere slogan coined for the purpose of procuring a prize offered by an advertising manager, but a natural outburst based on facts.



MR. JOHN J. BAUSCH, HEAD OF BAUSCH  
& LOMB OPTICAL CO., CELEBRATES  
HIS EIGHTY-FIFTH BIRTHDAY

Mr. John J. Bausch, president and founder of the Bausch & Lomb Optical Company, celebrated the eighty-fifth anniversary of his birth, July 25th. Before leaving his office, Mr. Bausch was met by a committee representing the entire working force of the plant and presented with a large volume containing a salutation signed by every one of the 2,500 employees of the company. The presentation was made by William Wishart, Fred Herbst, William Allan, A. Grebe, Harry Moody and Joseph Hammele.

Mr. Bausch's response to this tribute became known when the employees received their pay envelope. In each envelope was a card which read:

"On July 25, 1915, I will have reached the eighty-fifth anniversary of my life, and being able to enjoy my work in daily association with my employees, I desire to give expression of my feelings of gratitude by contributing ten thousand dollars to the pension fund, ten thousand dollars to the relief fund and by making Monday, July 26, a holiday with full pay."

Although 85 years old, Mr. Bausch is at his desk every day and takes as much interest in the work as he exhibited when the great plant was in its infancy.

☆ ☆ ☆

MOVING PICTURES: HOW THEY ARE  
MADE AND WORKED, by Frederick  
A. Talbot. Profusely illustrated  
with many drawings and photo-  
graphs. 340 Pages. 8vo. Cloth.  
\$1.50 net. Postpaid, \$1.65.

Few know of the romance, the adventures, the great preparations and marvellous ingenuity that go to make up the picture plays we see. Mr. Talbot tells all about the subject, and a reading of this remarkable book will acquaint you with the inmost secrets of the moving picture stage, and it will open to many photographers a new field of work.

This is the first book ever published on cinematography suitable for the layman. The author has managed to make the romance "behind the scenes" of the bioscope as alluring as the actual performance. He tells us how, for instance, a complete company of players and a menagerie were transported to the depths of California to obtain sensational jungle pictures; how an entire village was destroyed in imitating an Indian raid, and a hundred other exciting and bewildering incidents.

At the same time it is intended to fulfill the purpose of a popular textbook without dipping into physics, chemistry or mathematics. The expert moving picture man will find it a fund of valuable information, and the novice, from the instructions given, will be able to take and project moving pictures.

☆ ☆ ☆

Mr. George Eastman has presented the citizens of Rochester with another of his generous philanthropies, consisting of a subscription of from \$250,000 to \$300,000 for a new free dental dispensary, together with a further sum of \$30,000 a year for five years for maintenance purposes, and an endowment fund of \$750,000 at the end of five years—a total of about

\$1,200,000. Some idea of what Mr. Eastman has done for Rochester may be gained from reading the list of his published benefactions. It now exceeds \$3,400,000 and is made up of the following items: Free Dental Dispensary, \$1,200,000; University of Rochester, \$575,000; Chamber of Commerce, \$500,000; General Hospital, \$400,000; Y. M. C. A., \$285,000; Mechanics Institute, \$225,000; Cobb's Hill Park, \$60,000; Homeopathic Hospital, \$60,000; Hahnemann Hospital, \$50,000; Durand-Eastman Park, \$50,000; S. P. C. C., \$45,000; Y. W. C. A. and I. S. H., \$25,000.

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The following are the winners in the Fourth Photo Contest of the Rochester Photo Works: First prize, Lawrence Baker, Marietta, Ohio, "Spring Landscape;" second prize, A. Stettenbenz, Buffalo, N. Y., "Snookums;" third prize, G. H. Seip, Philadelphia, Pa., "Winter Scene;" fourth prize, W. S. Davis, Orient, L. I., "Sunset Glow;" fifth prize, H. W. Congdon, New York City, "Marksmen All."

Those receiving Honorable Mention are as follows: First, Mrs. Fletcher, San Francisco, Cal., "Autumn;" second, Chas. Smyth, Denver, Colo., "View of Denver;" third, H. D. Williar, Baltimore, Md., "A Bit of Holland;" fourth, Wm. Fisher, Baltimore, Md., "Outing;" fifth, H. W. Congdon, New York City, "Outcasts."

☆ ☆ ☆

Folmer & Schwing-Division, Eastman Kodak Co., Rochester, N. Y., want negatives made with Graflex cameras. Liberal prices will be paid, but send a proof of what you have. A prompt reply will be sent you, stat-

ing whether the negative can be used and the price paid.

☆ ☆ ☆

#### NEW DIFFICULTIES FOR GERMAN MANUFACTURERS

Just after it became known, in December of last year, that on account of the seizure of nitric acid the production of silver nitrate would be impossible, or at least doubtful, steps were taken by the Union of Manufacturers of Photographic Materials to ward off the threatened danger; for there really was danger, because without silver nitrate the practice of photography would be impossible. Even the military authorities were affected by it because the dryplates and photographic papers required for technical war-purposes could no longer be manufactured. Urgent representations, however, were not forbidden, and the nitric acid was supplied for making silver nitrate. It was also ordered that where silver nitrate is obtainable it may be sold and used in any quantity without further trouble. Hardly, however, was this difficulty disposed of when the question of getting nitric acid for making collodion arose, so that at least they might be able to make collodion paper. In this also relief was soon obtained.

Now our industry is threatened with a new danger, because as a result of the confiscation of all nitric acid the manufacturers find it impossible to get enough collodion. The manufacture of silver nitrate is also again in question, so that efforts are being made to find a substitute. The query has been made especially, whether in the preparation of emulsions silver sulphate could not take the place of the



nitrate. The difficulty arising from the confiscation of nitric acid is all the greater on account of the greatly increased demand for photographic papers caused by the war, and most of the factories, owing to the scarcity of materials and workmen, are not in a position to fill their orders. With the portrait photographers, who form only a fraction of the whole industry, the scientific and reproducing branches are hard hit. Nevertheless, it may be counted upon as certain that the efforts of the manufacturers in conjunction with the authorities will succeed in finding means to make possible a larger production.—*Photographische Industrie*.

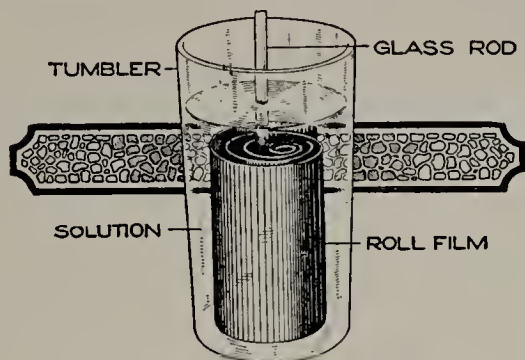
☆ ☆ ☆

#### NEW METHOD OF DEVELOPING ROLL FILMS

Many devices have been made for developing and fixing roll films. There is the simple wholesale method of the professional who hangs a weight on one end of the film and lets it down in a deep tank of developing fluid where it hangs submerged from an upper support until the developing is complete. Then the support, the film, and attached weight are removed, dipped into a similar tank of running water, then to another tank of fixing solution, and subsequently washed and dried.

This is the only practical plan where there are many such films to be handled simultaneously, but the amateur who has only one or two rolls a week cannot afford the tanks, the space, nor the expense incident to such a method. The film is usually drawn back and forth through a developing solution placed in a tray, and after the de-

velopment has proceeded far enough, the same process used in washing, then the hypo solution, and finally through the last washing for about 20 minutes, all making a tedious process.



An Ordinary Drinking Glass Used for Developing Roll Films

Some amateurs and a few professionals who but occasionally develop a roll film use a mechanical device that rolls the film into a light-proof package which is inserted in a metal tank for development and subsequent fixation. This is a standard process, the apparatus being on sale at all supply houses, but it has its drawbacks.

The following method is not only simple but perfect in its operation and requires no special apparatus, only a tumbler or lemonade glass, and an ordinary lead pencil for its operation. A glass rod is preferable to the lead pencil, and it is also convenient to have a deep tin cup, or similar device, to cover up the lemonade glass and make it light-proof, should it be desirable to turn on the white light in the dark room.

Pour enough developing solution into the glass tumbler to cover completely the roll of film when it is standing on end. In the dark room open the film roll, remove the backing paper and the paper ends on the film, run it through clear water until it is thoroughly and uniformly wetted from end

to end, and drop it endwise into the tumbler of developer. Immediately insert the pencil or glass rod into the center of the roll, and with a rather quick circular motion, move the rod around so that it will quickly pass between the several convolutions of the film and thus distribute the developer all over its surface. Repeat this operation at once, then again in a few seconds, then in 15 or 20 seconds, then in 30 seconds, then in 1 minute, and so on, with greater intervals of time. If a 20-minute developer is used it will only be necessary, at the latter part of the development, to separate the layers every 2 or 3 minutes.

When the development is complete, pour off the solution and rinse in the same glass by letting water run through it while passing the pencil or glass rod between the layers several times. The water may then be drained off, and the glass filled with the fixing solution. While the film is fixing, the glass rod should be passed between the layers several times to renew the solution in contact with the film.

It will be seen that at no time after the first washing is it necessary to handle the film, so that damage to the film and staining the fingers are entirely eliminated. Further than that, no apparatus is tied up in the operation, and if a light-proof cup is at hand, the developing tumbler may be covered between the operations of separating the layers of film, and the white light of the dark room can be turned on for further operations.—*Popular Mechanics*.

☆ ☆ ☆

#### THE LIGHTING OF DISTANT VIEWS

It is often found that some distant

view, a panorama of the town from a point of vantage half a mile away, or something of that kind,, possesses good selling value, but that considerable difficulty is experienced in getting a negative which will show with sufficiently clear detail the points of the subject. This is usually due to two things. One, the haziness of the atmosphere, and the other the lighting of the subject. A good strong direct sunlight from the side is best, and a clear hard light should be chosen in preference to anything more sympathetic. If it is impossible to avoid a slight smokiness or haze in the distant portions a slow orthochromatic plate may be used with a light-filter which will cut out the blue of the haze and give better contrast to the distance. Over-exposure must be avoided, and if there are near trees it will be almost essential to under-expose for these, giving perhaps as full an exposure as possible for the distance, and so getting some detail in the nearer shadows. If the shadows are quite near, however, it is little use troubling about them, for faint detail visible in the negative will be lost when the print is made, and these very near shadows will not suffer by a shortened exposure, while the distance will gain. In some cases the distance may be photographed together with the sky giving a short exposure, while the foreground may be taken on another plate. Into a print from the foreground plate both sky and distance may be printed in much the same way that a sky is usually added to an average landscape.

B. J. of P.



# The Photographic Times

With Which is Combined

The American Photographer and Anthony's Photographic Bulletin

## Classified Advertisements

Advertisements for insertion under this heading will be charged for at the rate of 25 cents a line, about 8 words to the line. Cash must accompany copy in all cases. Copy for advertisements must be received at office two weeks in advance of the day of publication, which is the first of each month. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

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THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION,

135 West 14th Street, New York.

### HANDY REDUCING PASTE

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1 Box and Directions, 30 cents

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### Bartholdi Institute of Photography

Practical Instruction in Photography,  
Photoengraving, Illustrating and  
Painting. ESTABLISHED 1880

242 WEST 14th STREET

NEW YORK CITY

**Photographers** Sell Post Cards from your negatives. Put them in the stores, there is money in it. YOU HAVE THE NEGATIVES, WE WILL MAKE THE CARDS

100 from 1 negative, \$ 2.00	from 5 to 10 negatives, \$ 3.25
300 from 1 negative, 4.20	from 5 to 10 negatives, 6.30
500 from 1 negative, 6.25	from 5 to 10 negatives, 8.00
1000 from 1 negative, 10.00	from 5 to 10 negatives, 12.50

Delivery from 3 to 5 days, return postage 10 cents per 100  
Sample card and complete bargain list of cameras, lenses, etc. free.

A new Post Card size convertible anastigmat lens in cells, with case, will cover 5 x 7 plate wide open, \$18.00 post paid.

We take cameras, lenses, etc., in exchange.  
Ask us before buying.

**WRIGHT PHOTO SUPPLIES RACINE, WIS.**

**REPRESENTATIVES WANTED**—Opportunity for Amateurs and Professionals to make big money. This company pays more for photos than any other concern. It is their purpose to complete their force of representatives—you may become a part of this world organization—the largest of its kind. Send for data. Associated Photo Press, 625 Sterling Place, Brooklyn, N. Y.

**KEEP** yourself posted. Read all the advertisements in this issue carefully—and don't forget to mention **THE TIMES** when you write.

### STOP! LOOK!

Our New No. 19 **BARGAIN LIST** which is now ready is better than ever. Contains some startling values in Cameras, Lenses and Photographic Supplies. Imported Ica and Butcher Cameras. Headquarters for **Cyko Paper**.

Write today for **FREE COPY**  
**NEW YORK CAMERA EXCHANGE**  
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### BARGAIN LIST 127

NOW READY

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**WILLOUGHBY & A SQUARE DEAL**

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**Hurd's Lawn Finish** is the finest type of the fashionable fabric papers. Its quality is the best; it is beautiful in appearance, and the writing surface is exceptionally pleasing.

**Hurd's Suede Finish** represents the best quality in the medium smooth finish, and is much in fashion. It is also the finest wedding paper made. We carry a large stock of these fine papers.

**STYLES & CASH,**  
135 West Fourteenth Street,  
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## Learn a Paying Profession

that assures you a good income and position for life. For 20 years we have successfully taught

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Photo-Engraving and Three-Color Work

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**SEND US** the names of your friends who are interested in photography—we want to send them a sample copy of **THE PHOTOGRAPHIC TIMES.**

## Practical Photography

is the name of a new series of photographic books which will treat of various photographic subjects of present-day interest in a thorough and practical manner. Each one will give all the information on its subject which seems to the editors to be worth the attention of the average worker. The books will be well printed, sewed to open flat, illustrated when necessary, and will fit the pocket. They will sell at 25 cents in paper and 50 cents in cloth, and you can get them from most photographic dealers. Two are ready now.

### THE SECRET OF EXPOSURE

is a thorough guide to exposure under all conditions, and will enable you to make perfect negatives every time. All the factors of exposure are fully explained, exhaustive tables given, and the use of meters thoroughly gone into.

### BEGINNER'S TROUBLES

contains some hundred practical paragraphs on how to make perfect negatives and prints, written from long experience and useful to every photographer. If your dealer does not have them, we will send them postpaid on receipt of price.

**American Photographic Publishing Co.**  
435 POPE BUILDING, BOSTON, MASS.

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IN WHITE AND COLORS

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# Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

To Know

## "How to Make Good Pictures"

Read It.

Books that are readable as well as instructive are few and far between, but "How to make Good Pictures" fulfills these two conditions easily. As far as readability goes, it is almost a case of you open the covers and it does the rest—the reading is automatic. And as for instruction, the amateur gets farther and farther away from the novice class with each succeeding page.

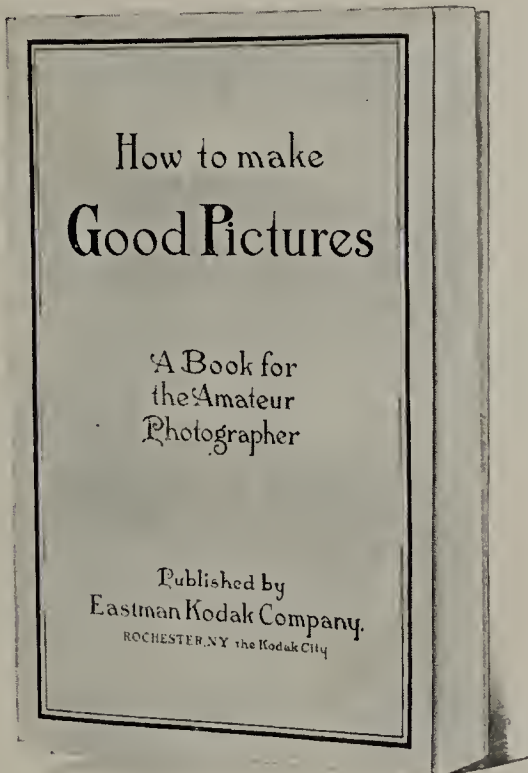
The information in "How to make Good Pictures" is all authoritative—the book steers clear of theory and deals exclusively with facts. The editors know photography because they have lived it—their knowledge was gained by hard work and their early mistakes and failures were still fresh in their memory as they wrote. So it is that they are able to divert you from the pitfalls that impeded their progress and to show you the right methods of working from the start.

The book opens with a chapter on lenses. This might well be a deep subject, so deep that many a reader might go down for the third time, in the middle of the second paragraph; but the lens information in "How to make Good Pictures" is shorn of bewildering technicalities and confusing theories.

It tells the amateur just what he should know about his Kodak lens and *the amateur knows.*

This chapter is indicative of the method of handling the many subjects of which the book treats. Out-of-door work, home portraiture, flash light work, printing and developing, enlarging, etc., are presented with all the detail necessary for a clear understanding of the right methods of procedure and the possible pitfalls, with no sacrifice to simplicity and directness.

"How to make Good Pictures" contains over a hundred illustrations which serve both to amplify and explain the text.



Paper Covers, - - - \$ .25  
Cloth Covers, - - - 1.00

### BIG PICTURES

There are always choice subjects among your vacation pictures. Either you are proud of a particular negative or the subject has some special interest.

In either case an enlargement puts emphasis on that particular picture.

You can make these enlargements the Vest Pocket Kodak or Brownie Enlarging Camera way. Just place the negative in the small end of the Enlarging Camera, the Velox paper in the other, expose to daylight, develop and fix.

(1)

# Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

## PUT YOUR VACATION IN BOOK FORM.

To keep the summer's fun alive for you and your friends, why not devote one of the smaller Kodak albums to the 1915 vacation exclusively, using both pictures and original text? The pictures properly arranged in an album have a heightened interest, possible in no other way, while the text, amplified from the Autographic records, makes the story absolutely complete.

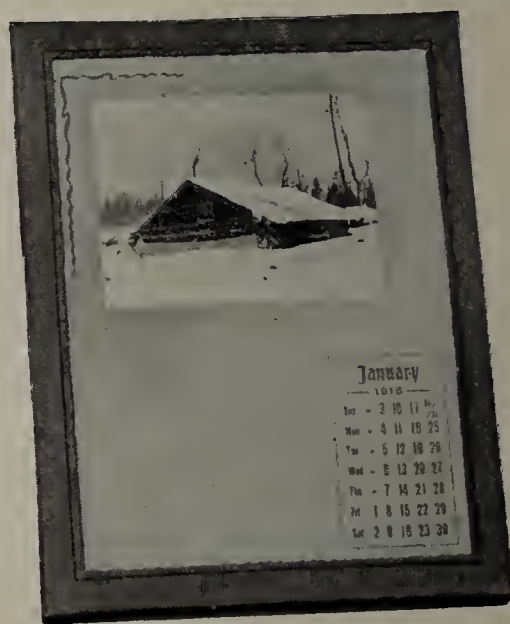
A friend of our's has followed this practice for sometime. Each vacation is given a separate book and each book is complete in itself containing both pictures and written story. The pictures are from 3A negatives, but many of them have been improved by careful trimming so that the size of illustrations is not uniform. Incidentally, the fact that the pictures are not all one size, offers possibilities for attractive page make-ups and eliminates any chance of picture monotony. The album leaves are black, so that the accompanying story is written in white ink—a very effective scheme. Our friend has no particular gifts as a writer, but a good time is the easiest thing in the world about which to write entertainingly. You *did* have a good time and this fact puts you in a properly enthusiastic mood at once—the story almost tells itself. And what you leave out or fail to explain, the pictures supply. In fact, in our friend's album, the pictures bore the brunt of the story telling, but the text *did* help and the combination was thoroughly delightful.

This particular amateur may have gone into the thing a little more elaborately than some of us would care to go. For example, he had taken his albums to the book binders and had "Yardland Yarns," (Yardland is the name of a summer colony), with the date and his name neatly gold stamped on each cover. But, even with less effort ex-

pected, the results would be thoroughly worth while.

A story album of this kind, by the way, makes the nicest kind of a gift—the nicest kind because it bears the personal touch. As a remembrance to a host, who may have made certain of our good times possible—the album story goes far to make him feel that he is your debtor, not you, his.

And speaking of appropriate gifts, the New Year Book Calendar is going to interest you immensely when you start your Christmas plans—and you can never get them under way too



*The Year Book Calendar.*

early in the season. The Year Book Calendar is an entirely new feature, and is as attractive, as it is novel. It consists of twelve mounts on each of which is the month's calendar. The mounts are contained in a carton having an easel back and may be easily shifted from month to month. The color scheme is Swiss Gray and London Brown,—suitable for either black and white or sepia prints. Home pictures, vacation pictures, any kind of picture as long as it has a personal interest to the recipient, may be neatly mounted while at the left of each calendar, space

(2)



# Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

has been reserved for an appropriate little story suggested by the picture. As a memento to give to the friends who helped to make good times good, the Year Book Calendar containing pictorial and written evidence of those good times, could hardly be improved upon.

## The Price

Year Book Calendar, - - \$ .50

## KODAK CARD MOUNTS.

There are many pictures that we like to have before us all the time either because of their natural beauty or because of the pleasant memories they revive. It is necessary, of course, that such prints be appropriately mounted, and the amateur is sure to make a pleasing selection from the tasteful line of Kodak Card Mounts.

There is no more effective method of mounting prints than double-mounting but, being more or less human, most of us would be more than willing to secure double-mount effect without double-mount work. The "Drimount" does just this. Printed in two shades, one for the center of the mount, the other for the border, the effect of double-mounting is admirably secured. When the print is mounted, just enough of the center shade appears, to neatly border the picture, while the predominant color of the card serves to throw both border and print in relief. It is only by the sense of touch that the effect of double mounting can be dispelled. As far as appearance goes, the "Drimount" is a double mount.

The "Drimount" is well adapted to almost any kind of a picture. It is essentially the mount versatile being equally effective for portraits or landscapes.

It is manufactured in a variety of sizes to fit pictures from post card size up to enlargements, as large as 11 x 14

inches. It may be secured in two colors, English Gray and Sepia-Buff, and the price ranges from twenty-two cents a dozen upwards, according to size.

Another and perhaps more novel mount is the "Woodmat". Here the impression created is that the print is not only mounted but framed. The print is mounted on a slip-in principle, while the mount border gives the effect of a rich brown, wooden frame. The "Woodmat" is sized for prints from  $2\frac{1}{4} \times 3\frac{1}{4}$  inches up to  $4\frac{1}{4} \times 6\frac{1}{2}$  inches and is priced from five to ten cents per mat.

*The experience is on the scale.*



## The Kodak Autotime Scale

tells you at a glance the proper exposure under any condition of outdoor photography.

Attached to the shutter of your Kodak, its information is always in plain view; you have but to set the speed and diaphragm indicators at the points governing the conditions under which the picture is to be made and the correct exposure is assured.

### THE PRICE.

Kodak Autotime Scale, \$1.00 and \$1.50  
according to style.

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.

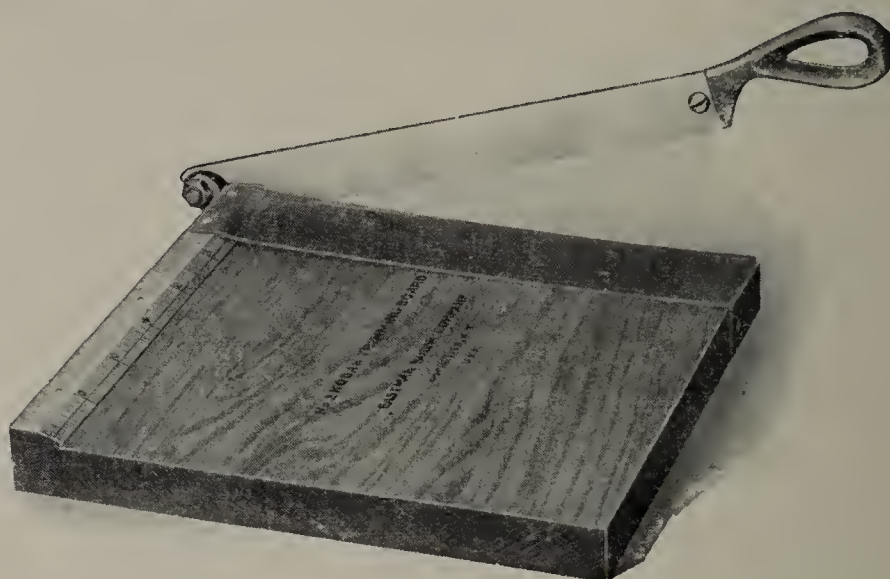
*At your dealer's.*

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When writing to advertisers please mention THE PHOTOGRAPHIC TIMES

(13)

The rule, steel blade, and exact construction of the



## Kodak Trimming Board

insure even white margins on the prints that demand them.

And then there is the chance to edit your picture copy. Clip, and uninteresting foreground, blank sky or distracting details take their proper place in the waste basket.

### THE PRICE

#### KODAK TRIMMING BOARDS

No. 1, capacity, 5 x 5 inches,	-	-	-	\$0.40
No. 2, capacity, 7 x 7 inches,	-	-	-	.60
Transparent Trimming Gauge (extra),	-	-	-	.20

EASTMAN KODAK COMPANY,  
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*At your dealer's.*





*The New*  
*No. 2 Folding*  
*Autographic*  
**BROWNIE**

Price,  
**\$6.00**

**A**LL the Brownie simplicity of operation—but a long step ahead in compactness and efficiency—and it has the *Autographic feature*, heretofore incorporated only in the Folding Kodaks.

Cleverly constructed, it is exceedingly compact although nothing has been sacrificed in length of focus of lens or efficiency of shutter in order to reduce the size.

*Specifications:* No. 2 Folding Autographic Brownie, for  $2\frac{1}{4} \times 3\frac{1}{4}$  pictures. Loads in daylight with Kodak Autographic Cartridge of six exposures. Size  $1\frac{1}{4} \times 3\frac{1}{8} \times 6\frac{1}{2}$  inches. Fitted with meniscus achromatic lens. Kodak Ball Bearing shutter with variable snap-shot speeds of  $1/25$  and  $1/50$  of a second, also time and "retarded bulb" actions. Shutter is equipped with Kodak Autotime Scale. Camera has Automatic focusing lock, two tripod sockets; is made of metal, covered with a fine imitation leather and finished in every detail.

Price, with meniscus achromatic lens, - - - - \$6.00

*At all Kodak dealers'.*

**EASTMAN KODAK COMPANY,**  
**ROCHESTER, N. Y.**

The only

# Grand Prize

and therefore *the only* “*highest honors*” pertaining strictly to photography at the

## Panama-Pacific Exposition

was awarded to the

Eastman Kodak Company



# THE PHOTOGRAPHIC TIMES

## PRINT COMPETITION

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**O**N account of the continued success of the Revived Print Competition, the Editorial Management of THE PHOTOGRAPHIC TIMES will continue these pictorial contests until further notice.

The next contest will be closed December 30th, 1915, so as to be announced in the February Number with reproductions of the prize winners and other notable pictures of the contest. The prizes and conditions will be the same as heretofore, as follows:

First Prize, \$10.00

Second Prize, \$5.00

Third Prize, \$3.00

And three honorable mention awards of a year's subscription to  
THE PHOTOGRAPHIC TIMES.

In addition to which those prints which deserve it, will be Highly Commended.

### CONDITIONS:

The competition is open freely to all who may desire to compete, without charge or consideration of any kind. The subject for this competition is "Flashlights," indoors or out.

Prints in any medium, mounted or unmounted, may be entered. As awards are, however, partly determined on possibilities of reproducing nicely, it is best to mount prints and use P. O. P., or developing paper with a glossy surface. Put the name and address on the back of each print.

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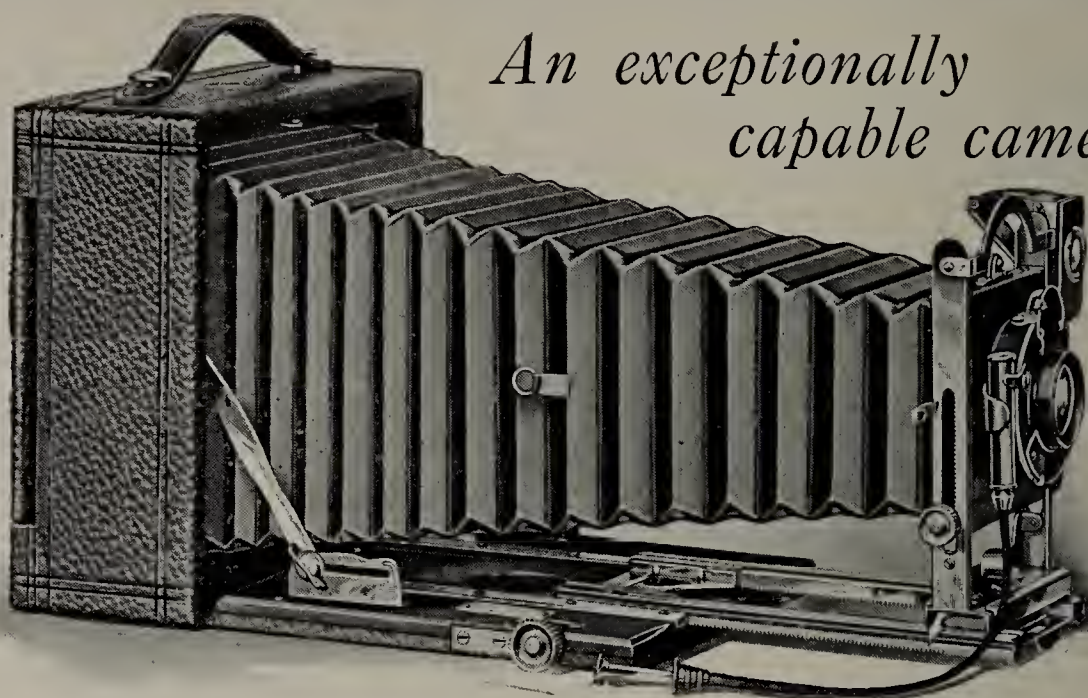
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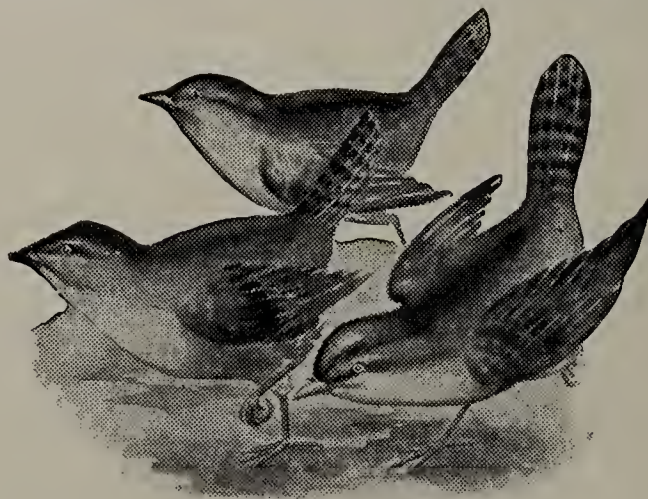
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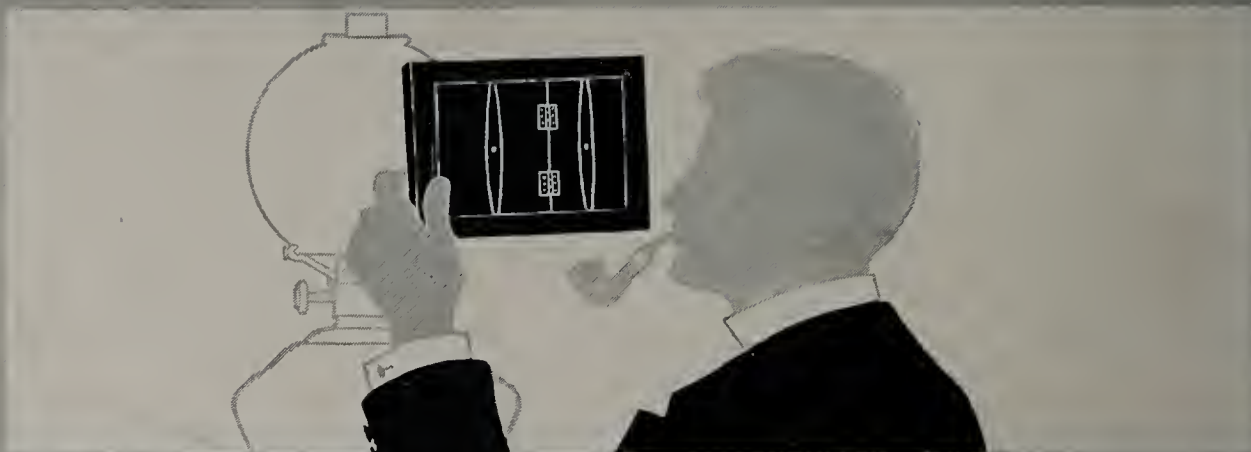
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